# DR. LE PAGE'S AXIS TRACTOR.

PATENT No. 23686.

The "Medical Annual" says:—"We cannot speak too highly of the simplicity and the ingenuity of this invention. A ready and practical aid."

The Tractor is already used by many hundreds of Practitioners at home and abroad Simple, effective, and uncomplicated, it allows of traction in any direction, fits any ordinary forceps, is attached in a moment without unlocking, and does not interfere with play of blades, nor with the intermittency of compression.

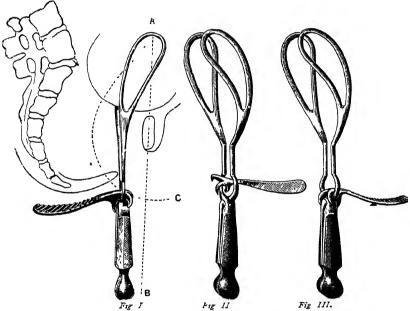


Fig 1, Relation of forceps, head and pelvis. A B, Direction of traction with forceps. A C, Line of traction with Tractor, which is the true axis of the canal Fig 11, Mode of attachment Fig 111, Tractor in position

• Complete control over the forceps is attained, and any desired movement can be made with ease and precision. The available power is greatly increased and the force requisite is much less than is necessary with forceps alone.

ONCE USED, ALWAYS USED. Price 8/6, Postage 3d.

R. SUMNER & CO., Lord Street, LIVERPOOL.

"STRONGEST and BEST."

HEALTH.

# Fry's

PURE CONCENTRATED

# Cocoa

95 PRIZE MEDALS

AWARDED TO

J. S. FRY AND SONS,

Bristol, London & Sydney, N.S.W.

Members of the Profession are cordially invited to write for Samples.

# PURVEYORS to H.R.H. the PRINCE OF WALES and to H.M. Houses of Parliament.



SIR CHARLES CAMERON, Superintendent Medical Officer of Health, and Vice-President of the Royal College of Surgeons, Ireland, says —"'Club Soda' neutralizes the lactic acid in the blood which gives rise to rheumatism and other affections 'Club Soda' is an antidote to acid dyspepsia. 'Club Soda' promotes digestion 'Club Soda' is the most wholesome daily beverage that can be taken"

#### CARWARDINE'S SACCHAROMETER (Regd.)



SACCHAROMETER, UREAMETER, AND ALBUMINIMETER, in Strong Mahogany Case, with full instructions, 21/-.

SOLE MANUFACTURERS-

MAYER & MELTZER 71, GREAT PORTLAND STREET, LONDON, W.
(Surgical Instrument Makers) Melbourne & Cape Town.



The late **SIR ANDREW CLARK,** PRCP, in a lecture on "The Treatment of Fibroid Lung Disease," given at the London Hospital, Session 1892-3, said —

"I have said that these Fibroid cases are poor creatures, thin and white, and have what may be called nutritive debility, and the question is: What am I to do with them? You cannot do better than endeavour to make the patient walk in the way of physiological righteousness. But that sometimes will not do. Some people may be physiologically well-behaved, and somehow they do not thrive on it. Can you do anything in those cases? There are two remedies which sometimes do succeed where the ordinary diet will not succeed in nourishing the patient. The one is Cod Liver Oil and Malt given with food—a preparation called Bynol—and the other is the remedy called Bynin Emulsion, consisting of Hypophosphites, Oil, and Malt; both are prepared by Messrs. Allen & Hanburys. These are two good nutritive agents in promoting nutrition."

(See also THE LANCET, January 6th, 1894, \$ 3, and January 20th, \$ 188)

# Bynol The "Perfected" Malt and Oil.

Is a most intimate inviture (or so-called Solution) of Cod Living Oit with Alien And Hanberry' Mair Extract, in which the oily flavour is completely disguised. At the same time absorption and assimilation are rendered more certain, partly owing to the extremely fine division of the particles and partly to the presence of Malt, by which the digestive piecesses are greatly assisted

The Lancet writes — "Bynol" is one of the compounds or solutions of Malt Extract and Cod Liver Oil which are now so describedly popular Globules of oil cannot be distinguished We believe that 'Bynol' will be taken and digested by many who cannot assimilate Cod Liver Oil"

The British Medical Journal writes—
'Bynol' is a perfect combination of Malt Extract with Cod Liver Oil—It has a pleasant taste, without any suspicion of Cod Liver Oil

Sold in Wide mouthed Jars, at 2/- and 3/6 each 18'- and 32'- per dozen to the Profession

### Bynin Emulsion.

Is another extremely agreeable form in which to take Cod Liver Oil, as it resembles two cream in appearance, and a delicate custard in taste. Absolutely no trace of Oil can be detected by the palate. It possesses a further advantage in that it contains the valuable food substances of oil. "Mother's Milk (No 2) Food," together with the valuable digestive properties of Malt Extract, and, lastly, it has a useful tonic action owing to the presence of the Hypophosphites of Lime and Soda. Thus, taking it as a whole, not only is nutriment supplied in an easily digested and very palatable faim, but the work of digestion is rendered easier by the presence of diastase, and the nervous system in particular is nivigorated by the aid of mineral tonics. I he large percentage of Cod Liver Oil present makes this preparation an extremely valuable one to those who are losing flesh, as the arrest of emaciation by its use is generally very marked.

Sold in (apsuled Bottles only, at 1,4, 2/6, 4/9 and 9'- Or 12/-, 23/-, 44/-, and 80/- per dozen to the Profession

# Bynin (Liquid Malt).

Sold in Bottles at 1/9 and 3/- each. 16/- and 27/- per dozen to the Profession.

#### SUPERSEDES ALL OTHER FORMS OF MALT EXTRACT.

BYNIN is a highly concentrated Liquid Extract of Malt, free from the troublesome viscidity or treacle-like consistence of the preparation usually met with. It is a valuable article of diet, and is largely prescribed in digestive disorders, and wherever it is desired to improve assimilation, as in the wasting diseases of children, Phthisis, &c. Given with or immediately after a meal, it facilitates the digestion of Farinaceous Foods

The Lance t writes "An active malt essence We find that one ounce of Bynin will digest perfectly one pound of starch. This is a most favourable result, and coupled with

the fluidity and pleasant flavour renders this preparation a most valuable one"

One Fluid Ounce of Bynin represents One Ounce by Weight of Allen & Hanburys' Ordinary Thick Malt Extract, which is sold in wide mouthed jars, similar to their Bynol jars at 1/6 & 2/9 ea

### Byno=Hypophosphites

Is a neutral solution of the Hypophosphites of Iron, Manganese, Calcium and Potassium, to which are added the Alkaloids of Cinchona and Nux Vomica The whole being in combination with Bynin, our Liquid Extract of Malt, which obviously provides a more suitable vehicle for the Hypophosphites than the sugar syrups. The Alkaloids are present as they are found in the plants from which they are derived

that is in combination with the natural acids, and in this condition are believed to be

more readily assimilable

Sold in Bottles at (Retail) 2/6 & 4/6 each.

24/- and 41/- per dozen to the Profession.

### Byno=Pancreatin

A fluid extract of the ferments and other constituents of the Pancreas in combination with the nutri-

nation with the nutritive and digestive components of Malt It is especially valuable in peptonizing milk and other foods Full directions accompany each Bottle

In Bottles at (Retail) 2/-, 3/6 and 6/6 each.

18/-, 32/- and 58/- per dozen to the Profession

# Byno=Pepsin

This is a solution of Pepsin in combination with "Bynin" (Liquid Malt) It thus affords, in a highly active and agreeable form, the agents required for the digestion of both animal and

agreeable form, the agents required for the digestion of both animal and unimpaired for long periods

Sold in 4, 8 and 16 oz. Bottles at (Retail) 2/6, 4/6 & 8/-, or

23/-, 41/- & 72/- per dozen to the Profession.

## Coca Bynin

A combination of BYNIN with the active principles of the leaves of Frythroxylon Coca, possessing all the valuable nutritive and diastasic properties of Malt, together with the extraordinarily stimulating and

exhibitating effects of the Coca plant It may be used for the extemporaneous preparation of Coca Wine It is very palatable

In Bottles at (Retail) 2/6 & 4/6. 24/- & 41/- per dozen to the Profession.

Samples of any of the above will be supplied, on application, to Medical Men resident in Great Britain

# Hypoderms.

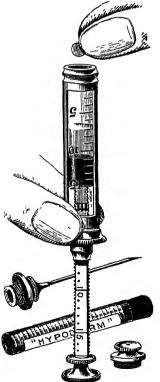
Is the name ALLEN AND HAN-BURYS have applied to their Compressed Tabellæ of drugs for

#### HYPODERMIC

OR convenience in administering a great variety of drugs by hypodermic injection, our HYPODERMS will be found unsurpassed and have within the last few months been still further greatly improved. The special properties of each active principle is carefully studied, and the varying degrees of solubility, deliquescence, etc., in each alkaloid or salt is studied, and the varying degrees of solidity, designescence, etc., in each attaclid or sair is treated individually, in order to secure an excipient in every case equally conducive to its ready solubility and preservation. Hypoderms dissolve in water almost instantaneously without the aid of heat or inturation. No prestle and nortar is needed. The dose is exactly known. The drug is in its purest form. Provided that the Syringe and Needle are kept quite clean, and that distilled water is used, no subcutaneous irritation of inflammation can

dute crean, and that distilled water is used, he subcutaneous irritation of inhammation can follow their use. The Drug, being combined with a non-hygroscopic base, preserves its active properties unimpaired for any length of time.

The Lancet writes—"The following advantages claimed for the 'Hypoderms' are found to be perfectly true—they dissolve easily and rapidly in a minimum of water without the aid of heat or trituration, yielding at once, if preterred, in the syringe itself a uniform solution of the dug, whilst, of still greater import, they contain according to analysis the exact amount of active ingredient they are stated to contain ' (See rest of article for exact analysis of Hypoderms, June 6th, 1891)



#### LIST OF HYPODERMS.

Acidum Scleiotinicum	1-2	gr
Aconitina	1-2 0	gr
Apomorphine Hydrochloras	1-10, 1-30	gr
Atropinæ Sulphas	1-60, 1-10:	gı
*Caffeinæ Sodio-Salicylas	1-2	gr
Cocainæ Hydrochloias	1-8, *1-4, *1-2	gr
Digitalinum	1-100	gı.
(Digitalinum	1-100	gr
Morphine Sulphas	18	
Eigotinia	1-2)0, 1-100	gr
Eserinæ Salicylas, mde Physi	ostigmin i	-
Gelseminæ Hydrochloras	. 1-50	gr
Homatropinæ Hyd obiomas	1-000	gı
Hyoscinæ Hydi obiomas	1-200, *1-10J	gı
Hyoscvaminæ Sulphas	1-50	gı
Hydiaigyii Perchloiidum	1-20	
Morphinæ Sulphas	1-9, 16, 1-4, 13, *12	gı.
(Morphine Sulphas	. 18	gı.
l Atropinæ Sulphas	1-200	gr
Morphine Sulphas	16	gr
Atropinæ Sulphas	1-180	gı
(Morphinæ Sulphas	14	gı
l Ationinæ Sul- has	1 40	$\operatorname{gr}$
(Molphinæ Sulphas	1 8	gr
Atropinæ Sulphas	1-120	gı
Morphinæ Taitras	1-8, 1-4	gr
Physostigminæ Salicylas	1-100	gı
Picrotoxinum	. 1-100	gı
Pilocarpine Hydrochloras	1-10, *1 2	gı.
Quininæ Hydrobromas	12	gı gr
Sparteinæ Sulphas	1 2	gr
Strychninæ Sulphas	1-107, 1-60	$\operatorname{gr}$

Other strengths and formulæ are frequently added, and can be made to order Put up in small thus containing 20 Hippdems in each, except those marked with an askerisk, which contain 12, at 9d, each, or 79 per dozen tubes

The Hypoderms may be dissolved in the Syringe itself, ensuring absolute accuracy of dose, and saving of time to the practitioner

Hypodermic Syringes and Cases in great variety Any special form not in stock made to order altered to surt individual taste

#### FULL PRICE LIST ON APPLICATION

Physicians desiring to prescribe HYPODFRMIC TABELLE as manufactured by ALLEN & HANBURY, are requested to use their term "HYPODERM," and to add the initials

Samples of Hypoderms sent post free to medical men on application.

# Tabellæ

MANUFACTURED BY

# Allen&Hanburys,

#### THYROIDIN TABELLÆ.

The continued success attending the new line of the itment in Myvædema, Psoniasis, and alhed diseases by Extrict of the Thyroid Gluid, will doubtless further extend the uses of this valuable therapeutic agent. Since 1891 a sufficient number of patients have been to all appearances so restored to health that it is allowable to othere that they can hardly relapse again. Thyroidin "Labella contain the active principles isolated from carefully selected glands, and readily distintegrate when swallowed. The Medicar Press and Crivillar writes, 25th October, 1893.—"These we manufactured with the care and attrictive form for which this film is celebrated, and the results have answered our most sanguine anticipations."

ALEN & HANGLEN'S preparations of Thyroidin were introduced to the medical profession in the advertising columns of The Lancet, on February 25th, 1803. Cueful study and long experience in the mode of preparation, under the guid mee and direction of some of the leading members of the me ical profession, have en bled them to produce Thyroidin, ze, the active principles isolated from cuefully selected glands, minus blood fat and inert tissue which vea it discombines, producing given disturbances, counting, etc., and which give to some preparations on the market a most repulsive smell, especially when they have been kept for a short time

Three cases of Psoriasis were completely cured by the administration of Tabellæ Thyroidin (Allen & Hanburys').

See *lhe Lamet*, Jan 6th, 1894, p 19, "Five Cases of Skin Disease treated by Thyroid Gland," by J F Goidon Dill, Esq , M A , M D

#### SPARINGLY SOLUBLE DRUGS.



In the earlier days of the manufacture of Compressed Drugs it was abundantly evident that many doses passed unchanged through the system, the mass never being disintegrated. An important improvement in their manufacture was therefore introduced by ALIEN & HARBURYS, and now those drugs, such as Surfam, Sulfahoual, and others which are insoluble, or almost so, are made up in Tabellae, which at once disintegrate on coming in contact with moisture.

The Editor, Brathwatte's Retrospect of Medicine, January to June, 1893, 5 135 — "We would especially notice the Tabellæ Sulphonal prepared by Messrs Alien & Hanburgs disintegrating process, by means of which the highly insoluble Sulphonal is made readily soluble, and so the me onvenioners which not unfrequently arise from its delayed absorption are entity processed."

absorption are entirely presented"

The Journal of Latingology writes—"It is this solubility of Mesers Allin & Handury's Compressed Tabella, which makes them so distinct from other preparations in the market"

#### NAUSEOUS DRUGS.

In addition to the above improvement, all pruscous drugs are sugar-ceated The most

fastidious palate can, therefore, find nothing to linder the use of such bitter, though valuable remedies as Alon. Caseaa, Quinne, etc., in the tabellar form as manufactured by Alterarbing but a sweet taste can be proceived. The centres of these Tabellae quickly disintegrate, when in contact with the moisture and waimth of the stomach, the puie drug being then put into the best conditions for absorption.



Suyar-coa'ed Cascara La' ella.

For List of Formulæ, etc, see next page.

#### TABELLÆ (Continued from preceding page)

Acidi Aisemosi, gr 1/100 and 1/50 Aconita Tinct m i and v \*Aloni gr 1/10, ½ and ½ \*Aloni Co \*Aloni Co c Cascara Ammon Boratis, gr v Ammon Brom, gr v and 10 Ammon Chlorid, gr rij and v Ammon Gines Anti Acid Antitebrin, gr 11j Antitebrin, gr 11j Antite Tart, gr 1/120 and 1/16 et 1/20cac, as gr 1/100 n, et lpecac, we ge van Antipyrin, gr v Atropin Sulph, gr 1/100 Belladonne Tinct, m 1, iij, v, & x Bismuth Carb gr v ,, et Zingh ,, et Sode , Sode et Zingh Subnit, gr v Boracis, gr v gr v et Cocain , 1/20 Bronchiol
Caffein Citrat gr 1 and ij
Caffein Citrat gr 1 and ij
Calonel, Hydrobrom, gr 1j
Calon Sulphid, gr 1/10, i, and i
Camphor, gr 1/10, i, i, and i
Camphor, gr 1/10, i, i, and i
Camphor, gr 1/10, i, i, and i
Camphor, gr 1/10 and x
Camphor gr 1/10 and x
Cascaree Ext, gr 1j
\*Compound gr v end x
\*Chirosachun gr 1/10 and i
Cocaine, gr 1/20, 1/10, 1/8, 1/6, i, and i
Cocaine, gr 1/20, 1/10, 1/8, 1/6, i, and i
Codenne, gr c 0pto, gr v
Cupri Areentis, gr 1/50
"Sulph, gr 1v
Digestive (see B S d G)
Digitalis Tinch, m i and v
Dovers Powder (see Ipro co Bronchiol Dover's Powder (see Inec co \*Eastonn (each tab = 8i syrup) \*Ergotin, gr iij

Euonymin, gr † and 1 Exalgine, gr †, †, i, and iij Ferri Arsenatus gr 1/16 ... Redact, gr i, ij, and iij 'Ferri et Quin Cit, gr iij \*Fernuginous, gr v Gelsem (Resinoid), gr ; and ; \*Gualaci Co Gummi Rub \*Hydrarg c Creta g 1, 1, 1, i, and ij
Iodid Rub, gr 1/20
,, Virid, gr 1/100
Subchlor. (see Calomel) ,, ,, ;; Subchlor. (see Catomet)
Hydrastize Comp
Hyoscyami, Tinct, m 11 and x
Hypnal, gi v
'ichthyol, gr liss
Ipecac Pulv, gr 1/80, 1/20, 1/10, and v Ipecac Comp Pulv, gr v Kıno, gr i Kolæ, gr v \*Laxative \*Laxative Lithiæ Carb, gr, v Citrat, gr v Mag Carb Pond, gr v "," et Menth Pip et Zingib Mangan Dioxid, gr ij
Mangan Dioxid, gr ij
Menthol, gr 1/10 and 1/20
Morph Mur, gr 1/40, ½, and ½
, "gr 1/40, ½, and ½
, "gr ½
, "i, "gr ½
, i, "i, and i
Nitro glycerin, gr 1/100
Nucis Vom (Tineb), m 1, v, & x
Opii (Tineb), m ij
Fapani, gr 1, 1,1, 1,1, and v
, et Pepsin, gr 1, ½, ij, & nj

"Passin, gr 1189 \*Pepsin, gr 11ss \*Peptonic Phenacetin, gr v Pilocarpin Mur, gr 1/20 Podophyllin, gr ½, ½, and ½ Potass Bicarb, gr v

Potass, Bromid, gr v Chlor , gr et Boracis .. " Cocainæ, 1/100, 1/20 •• " Iodid , gr 11) and v " Nit , g v " Permang , gr 1 j and iij "Quin Bisulph , gr, 1/10, j 1, ij iij, and v
Resorcin (Resublimed), gr v
Rhei Co Pulv, gr v
, Pil BP et Hyd c Creta, aa gr 188, lis et Zingib et Sodæ Rhinitis " ¶Saccharin, gr ⅓ Salicin gr Salipyrin, gr v Salol, gr v Santonin, gr, i " , et Calomel, aa gr 1 Salicolini, s., et Calomel, aa gr 1
Soda Mint
Sodii Bicarb, gr v
, Bromid, gr v
, Chlorat, gr v
, Chlorat, gr v
, Dithicsaleylat, gr nj&v
, Salicylat, gr v (Physio
, Salicylat gr v (Natural)
, Salicylat gr v (Natural)
, Sulpho Carbolatis, gr v
Stiophanthi, Tinct, m nj and v SUBLIMATE. COMP

Sulphonal, gr v Sulphur, gr v Tannin, gr i ,, et Capsici Terebene, m i Thyroidin, gr v Urethane, gr iij and v Voice (see Pot Chloi Borar et \*Warburgii (Tinct = m 80)

\* Those of the above Tabella prefixed by an asterish are SUGAR COATED, and will in all cases be sent couled in this way (wiless otherwis, ordered)

SUBLIMATE TABELLÆ for quickly preparing antiseptic Solutions for sprays and lotions of definite strength are sold in bottles (retail) at 9d and 1, 6d All Tabellæ sold in bulk and conveniently put up in Vinaigrette Bottles for the pocket, with name and trade mark (a Plough) on label, at a uniform vale, viz 15, 28, 6d, and 48 6d each (retail), 8s, 21s, and 40s per dozen (Texcept Sacchain, which are 9d, 2s, and 4s (retail), oi 7s, 21s and 42s per dozen

Physicians desiring to prescribe Tabellæ of Allen and Hanburys' manufacture can signify the same by the addition of the initials "A. & H." which, for convenience, Allen and Hanburys have registered as a Trade-Mark, thus:-

> Thyroidin, gr. v., A. & H. Tab

Samples supplied to the Medical Profession on application

#### ALLEN & HANBURYS Ltd., LOMBARD STREET, LONDON. PLOUGH COURT.

West End House-Vere Street, Cavendish Square, W Laboratories and Warehouse—Bethnal Green, LONDON, E Cod-Liver Oil Factories—Longva & Kjerstal, NORWAY Australian Agency—484, Collins Street, MELBOURNE.

#### MEDICATED THROAT PASTILLES.

Manufactured by ALLEN & HANBURYS.

THESE Pastilles are introduced as an improvement on the ordinary hard, rough, and angular Lozenges, frequents of which often untate the mouth when in an inflamed or ulcerated condition. Having as their bisis Pate de Jujube, they are soft and demulent in themselves, whilst their rounded form and, in most instances, agreeable flavour make them valuable substitutes for the Lozenges now in common use

- 1 MORPHIA. (140th of a grain)

  dult dose from 6 to 10 daily
  2 IPECACUANHA. Results taken by children These pastilles are of the same strength as the B P Lovenges
  3 MORPHIA and IPECACUANHA. (140th grain Morph and grain Ipecac)
- Adults may take I every two, three or four hours
- of Iour Morphia and IPECAC
  UANHA. A more active (cinedy
  than No 3 (140th grain Morph
  1-5th Type: 1-5th Squills, Ac) NHA. A more active itinedy n No 3 (190th grain Morph, h Ipec 1-5th Squills, &c) For Adults I every two, three, or
- for dutts 1 every two, three, or foun hours

  OPIUM and BELLADONNA. An teeable substitute for, and contain 1 the same amount of, opum as the overnges of the British Pharmacopoeia.

  ACONITE. Is Ach Pastille equivalent to half a drop of the B.P. Tincture
- Adult dose 1 every two, three, or four hour
- 7 COMPOUND CAMPHOR or VOICE.
  Adult dose From 3 to 6 or 8 at intervals during the day.

8 CHLORATE of SODA. May be taken whenever the throat is uneasy to BENZOATED VOICE. Useful to public speakers, &c Less active than the

- speakers, &c Les Compound Camphor 1 of two may be taken shortly before any exertion of the voice

  11 CHLORATE of POTASH. A more agreeable form than the lozenge of

- agreeable form than the loxelige of the Pharmaconoma Dose From b to 12 daily 13 RHATANY Astringent Dose 6 to 12 daily at intervals 14 TANNIN, Astringent, and of the same strength has the Tannic Acid Lozenges B P
- 15 CARBOLIC ACID. Antiseptic and stimulant Dose I to be taken every two, three.

of four hours

16 BROMIDE OF AMMONIUM.

100se 1 to be taken every two, three,

- or four hours

  17 CHLORATE of POTASH and BORAX.
  Containing these two useful remedics in combination
- in combination

  Dose 1 to be taken frequently

  BORAX. Dose 1 to be taken frequently

  CHLORIDE of AMMONIUM. Expectorant Dose 1 to be taken frequently

  GUAIACUM. (2 grains of Guaiacum in each) Dose 1 every two hours.

  IODOFORM. (grain of foldofoum in ea)

  Dose 1 every two, three, or four hours

  DED GUM. Astrongert
- RED GUM. Astringent
- Dose 1 to be taken frequently EUCALYPTUS. Antiseptic & sedative Dose 1 to be taken frequently COCAINE. (1-10th and 1-20th gr). Sedative to the mucous membiane
- Dose 1 every three or four hours

- SEDATIVE and ASTRINGENT. (Mon
- pha 1 40th giam Red gum 2 giains)
  Dose 1 every two or three hours
  CODEINE. (18th grain Codeine)
  Sedative Dose 6 may be taken during

- the day

  COMPOUND EUCALYPTUS. Red
  Gum, Chlorate of Potash and Cubebs
  COMPOUND GUAIACUM. (Guaiacum,
  Chlorate of Potash and Red Gum)
  COMPOUND RHATANY. (2 grains of
  Extract of Rhatany and 1 10th grain of
  Hydrochlorate of Cocaine)
  Dose From 4 to 6 a day
  BORACIC ACID. (1 gnain)
  RED GUM and COCAINE. (Containing Red Gum and 1-20th grain of
  Hydrochlorate of Cocaine)
  RED GUM and CHLORATE of POTASSH Astungent

- 32 RED GUM and CHLORATE of POT-ASH ASTUMENT (2 gr of Extract of Rhatany)
  Dose From 4 to 6 a day
  34 TEREBENE (2 minims of Terebene)
  Dose From 4 to 6 a day
  35 JABORANDI (1 gr. Extract in each)
  36 PUMILIO PINE. Stimulant to the throat (1 minim in each)
  37 LETTUCE and BORAX. (Ext Lactuces gr 1 pulv Boratis, gr ij in each)
  38 GOCAINE CHLORATE of POTASH and BORAX. For tickling and initation of the throat
  39 LACTIC ACID. (2 minims of lactic acid in each)
- in each)
- Dose 1 may be taken frequently OCA. (Containing 2; gr of Coca Ext COCA. in each)
- Dose 1 every three or four hours EUCALYPTUS OIL. Antiseptic Antiseptic and stimulant
- Dose 1 every two or three hours
- 42 KOLA. Stimulating and tonic
  Dose 1 may be taken frequently.
  43 MENTHOL. (1-20th grain in each)
  Stimulant and antiseptic
- Stimulant and the required

  Dose I when required

  44 MENTHOL and COCAINE. (1-20th grof each in a Pastille) Stimulant, antitaken three or four times a day
- MENTHOL and RHATANY. (Menthol 1-20th grain, Ext Rhatany grs ij) Antiseptic, stimulant and astringent
- Dose 6may be taken dully at intervals MENTHOL and BROMIDE of AMMONIUM. (Menthol 1-20th gr., Ammon Bromide gr.) Antiseptic, stimulant and sedative Dose 6 may be taken
- dally at intervals

  ALUM and TANNIN. (Alum and Tannin, of each 1 g.) Astringent

  Dose 6 Pastilles may be taken daily
- at intervals
  TANNIN, CAYENNE and BLACK
  CURRANT. Astringent, stimulant and soothing

## A.W. REID & Co.,

Manufacturing Sanitary Engineers,

#### 69, ST. MARY AXE, LONDON, E.C.

#### REID'S

#### Portable Water Closets

For Cleanliness, Comfort and Convenience

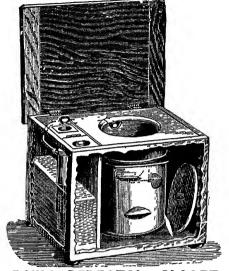
In Invalids' Apartments, Country Houses, House Boats, &c

PRICES
Reid's full size Improved Portable
Water Closet, white
basin, French polished mahogany
case, with door in
front

Do in polished pine case, with mahogany seat, door in front 5 o o Mahogany Arms to

Mahogany Arms to either of the above, extra o 12

Blue Printed Basins,



#### "ALDGATE" FLUSH DOW! PEDESTAL CLOSET.

Specially designed to work with a Syphon Cistern, compact in appearance, economic il in price



Plain white "Aldgate" Flush
Down Pedestal Closet, polished mahogany or walnut
seat, syphon cistern, brass
chain, porcelain pull, and
paper box, complete with
brackets for cistern and
seat

Do printed basin extra o 5 o Do printed inside and out,

PRICES

£ s. d.

Do with raised ornamentation, as illustration, in plain white . extra o 7 6
Do with self-rising seat, extra o 10 0

Gold Medal awarded at the International Health Exhibition, London, 1884.

#### oundation whenever a **G**00d

is necessary

ing is to be elected. No matter how thick and strong the walls are built, if the foundation is not firm and deep the building is liable to speedily come to ruin. No building ever erected requires such a good foundation as that wonderful organism, The Body "As the twig is bent, the tree's inclined," is an old and true axiom, and as the young body is nourished and fostered, a firm foundation will be laid, on which a vigorous and healthy framework will be built. Many a poor weakly, emaciated body is the direct result of wrongly fed childhood The little life wants food which will develop in it blood, and bone, and brain, and muscle Very few so-called Infants' Foods are worthy the name, and none are so rich in flesh and bone formers as SCOTT'S OAT FLOUR. It is the pure unmixed flour of Oats, the fibrous and irritating matter being all removed. Dr H C BARTLETT says of it. "Your preparation is the best I have ever examined. It shows remarkable proportions of flesh and bone forming matter."

Mine First Class Exhibition Awards.

#### MIDI OTHIAN

000000000000





UNEQUALLED as the perfect article of diet Highly recommended and used by many eminent physicians Highly recom-

> 000000000000 Sole Makers .

A. & R. SCOTT, Ltd., 28. Buchan St., GLASGOW; 375, City Road, LONDON, E.C.

# SOLUBLE "TABLOIDS" OF COMPRESSED DRUGS.

Prepared by BURROUGHS, WELLCOME & CO





PERMANENT



PALATABLE



PORTABLE

Physicians throughout the world have welcomed our improvements, and are offering us every encouragement to continue our work, as is amply shown by the correspondence now proceeding in the British Medical Fournal

Successful practitioners now recognise the well-established facts that in the practice of medicine absolute accuracy of dose is of the greatest importance, and that the influence of the mird over the body is such that whims and fastidiousness of patients in respect to nauseous and palate-offending medicines cannot be ignored. It is well known that patients often deceive their doctor by secretly destroying or throwing away medicines which thus offend, or of which the appearance is repulsive, and this even in cases where the successful or unsuccessful action of the remedy is a matter of life or death, as a natural result, if the patient de or derive no benefit, the doctor, or the drug, or both, bear the blame

"Tabloids" of compressed drugs in accurately divided doses greatly lessen the lisk of error by nurses and patients, and afford an unchangeable and acceptable form of administration, at the same time these medicines are so compact and portable that patients travelling or attending to business, professional, or official duties can easily carry them in the pocket without the least inconvenience

In prescribing "Tabloids" the greatest care should be exercised to prevent substitution, in fact, when our products are required it is wise to append the initials "B W & Co"

Official Text
of Award confeired upon
"Tabloids" at
the Chicago
Exhibition

"For purity of the medicine used in compounding; for ready solubility of the coating and ingredients of the "Tabloids"; for the improved method of manufacture, and general appearance of the manufactured article."

For List of "Tabloids" see next page

#### BURROUGHS, WELLCOME & Co.,

Manufacturing Chemists, Snow Hill Buildings, LONDON, E.C Cable and Telegraphic Address-"Burcome, London."

#### LIST OF "TABLOIDS" OF COMPRESSED DRUGS.

Aconite Tinct, 1 and 5 min Acontite Tinot, 1 and 5 min Agathin, 4 gr Aloin, 1/10 gr Aloin, 1/10 gr Aloin, 1/10 gr, Bella dona Est, 1/8 gr, Stlythmer, 1/60 gr, Jpecat, 1/16 gr, Stlythmer, 1/60 gr, Jpecat, 1/16 gr, Alumnol 4 gr Ammon Bromide, 5 and 10 gr Ammon Chloride, 1/5 and 10 gr Ammon Chloride with Borax Antacid (Magnesio Calice, Calicium Carlo Pracip, 3/9r, Magnes Carlo, 2/4 gr, Sodium Antacid (Magnesio Calcice (Cal)

Cum Cath Pinetip, 34 qt,
Magnes Caib, 24 qt, Swittim
Chond, 1 q

Antitebrin, 2 gr
Antim Tartrate, 1/50 gr

Antipyrin, 5 gr
Apomorphine Mur, 1/50 gt

Arsonous Acid, 1/100, 1/50, and
1/20 gt 1/20 gr Atropine Sulph , 1/100 gr Belladonna Tinet , 1, 5, & 15 min Benzosol, 5 gr
Benzosol, 5 gr
Bismuth and Soda, 24 gr each
Bismuth Salicylate, 5 gr
Bismuth Salicylate, 5 gr
Bismuth Subinterate, 5 and 10 gr
Blaud's Pill, 4 gr
Blaud's Pill e Aloin, 1:20 gr
Blaud's Pill e Arsenic, 1/64 gt
Blue Pill, 3 gr Mand S. Pill c Arsenic, 1992 gt. Bland S. Pill c Arsenic, 1992 gt. Bluax, 5 gr. Caffeine Citrate, 2 gr. Caffeine Citrate, 2 gr. Caledum Sulph, 1/10 gr. Calomel, 1/10, 1/2, and 1 gr. Camphor, Comp. Tinct. (Pare gorie), 2, 5 and 15 min. C mashis Indica Tinct, 5 min. Capsicum Tinct, 1 min. Cascara Sagrada Ext. 2 gr. Cascara Comp. (Cascara L. V. 1) y, 1 gr. Euon.min, 1/2 gr., Nut. 1/2 gr., 1 gr. Euon.min, 1/2 gr., Nut. Lit., 1/1, 1/18 gr. India, 1/2 gr., Cathartic Comp. U.S. P. (Fr., Cathartic Comp. U.S. P. (Fr., Cathartic Comp. 1/2 fr.) flyd. Sub. 1/4 gr., 1 gr., Camboque Tut. 1/4 gr., 1 gr., Carboque Tut. 1/4 gr., 1 gr., 1 gr., 1 gr., 2 gr., 1 gr., 2 gr., 1 gr., 2 gr., Chloralamid 5 gr Chloral Hydrate, 5 and 10 gr Cinch Tr 90 min Cinch Co Tr, 90 min Cocaine, With Poblash and Borax Cocaine, With Poblash and Borax Copper Arsenite, 1/1000 gr Orctee Aromat cum Opio Pulv, 5 gr Cubeb and Belladonna, Efferves Cubeb Comp (Cubeb Pult, 2 gr, Ammon ('hlor, 1/2 qr, 1 rt Cubeb Comp (Cubeb Pull, 2, Ammon Cube), 1/2 q, 1 Cilleyn 1h, 2 promatol, 5 gr
Dialy sed Iron, 10 min
Didymin, 5 gr
Digitalis Tinct, 1 and 5 min
Digitalis Tinct, 1 and 5 min
Digitalin, 1/100 gr
Dover Powder, † gr and 5 gr
Teaston's Syrup
Texotin, 8 gr
Eucolyptol Phosphate, 1 gr
E onymin Resin, 1/8 gr
Exalgin, 2 gr Exonymin Resn., 47 C Exalgin, 2 gr Ferri Sulph Exst., 3 gr Celsem Semp Tr. 5 min gr Ouslacour and Sulphur, as 3 gr Hydrarg Colocynth, 0 Hyos-cysamus (Pil Hydrarg, 2 gr, 7780bod ovanus (Pil Hydrarg, 2 gr, 7780bod oktic sugr

Hydrarg cum Cieta, 1/3, 1/2, & 1 Phenacetin (Bayer), 5 gr Hydrang cum Cross, 1 gr with
Hydrang cum Cross, 1 gr with
Pulv Ipec & Co, 1 gr
Hydrang Iod Rub, 1/10 gr
Hydrang Iod VII, 1/8 gr
Hydrang Petchlor, 1/10 gr
Hydrang Subchlor, 1/10 gr (see also Calomel) "Hydrasti t Comp (Hydrastin Mw, 1/4 q, Liqotin, 1/2 q), Cannabin Lannate, 1/2 qi) Hydronaphthol, 3 gr Hyoseyam Ti, 1 and 10 min. Hypnal, 5 gr +Ichthyol 21 gr \*Ichthyol 2; g!
Iodic Hydrarg, 1/6 gr
Iodopyrin 5 gr
Ipecae and Opium, 1/4 and 5 gr
(Dovor Powder)
Ipecae Powder, 1/10 and 5 gr
Ipecae Puly oum intim Tart, Ipecac Powder, 1/10 and 5 gr Ipecac Pul cum Intim Tart, a. 1/100 gr Ipecac Vin, 5 min
"Iron and Arsenic Comp (Quin incomplete Interpretation of the Interp Venthol, 1/2 gi , Sacchairn, 1/4 Morphine Sulph 1/20 and 1/8 gr Nasal (Dr Carl Seiler) Nasal Alkaline (Effervescent) (Borat, 5 gr., Sodum Chlor, 5 91 ) Nasal Antiseptic and Alkaline 5 9.)

Sasul Antiseptic and Alkaline
(Sadium Bicaib, 5 gr., 4 cid
(Subolic, 1/2 or., Borat, 5 gr.)

Naso Pharyngeal (Sadium Cillor
al, Boar, Bora Antial, Boar, Bora
al, Boar, Boar,
al, Boar

Princacoun (Bayer), or Pilocaspin Mu, 1/20 gr Podophyllin Resin, 1/4 gr Podophyllin Co. (Podophyllen Resin, 1/6 qr., Pil Rher Co., 2) yr Est Hyos, 1; qr.) (Si William Moore) William Moore)
Potass Bicant, 5 gr
Potass Bromde, 5 and 10 gr
Potass Chlorate, 5 gr
Potass Chlorate with Borax
Potass Iodide, 5 gr
Potass Int, 5 gr
Potass Permanganate, 1 & 2 gr
Potass Permanganate, 1 & 2 gr Pot as Fermingumen, 10 2 gr Pot as Salicylate, 5 gr Quinine Bisulph te, 1/2 gr \*Quinine Bisulph 1, 2, 3, & 5 gr Quinine Sulphate 1, 2, 3, & 5 gr Reduced Iron, 2 gr Reduced Fron, 2 gr Resocion, 3 gr 'Rhuban b Comp Pil, 3 gr (Rhe Pult, 14 parts, 4 lors Sa Pult, 1 part, Sapons I ult, 58 part, 61 Murth Pilt, 58 part, 61 Murth Pip) Rhuban b Comp Puls (Gregory Powder), 5 gr Rhubarb and Gentian (Stom Rhubarb and Gentian (Stom achic Comp) (Infus entitin Co., 2 ft. dt. Infus Rhet., 2 ft. dt., Sodum Rh., 5 gt., Ol Meuth Pip, 1/2 gtl.)
Rhubarb and Soda, 5 gr. (Rhub., 3 fts., Sodum Brearb, 2 pts. Ginge, 1/2 part
Balloarb, 8 gr.
Salloarb, 1/2 gr.
Salloarb, 2 gr.
Salloarb, 2 gr.
Salloarb, 2 gr.
Santonin, 1/2 gr. Salol, 5 gr
Santonin, 1/2 gr
Santonin, 1/2 gr
Sodium Bicarbonate, 5 gr
Sodium Bichio salicylate, 4 gr
Soda Mint (or Neutralising
"Tabloids") (Sodium Bicarb,
4 gr, 4mmon (carb, 1/8 gr)
Sodium Salicylate, 7 and 5 gr
Sodium Salicylate, 7 and 5 gr
Strophanthus (2 min of Tine
ture in each)
Sulphin Comp (Sulph Praci),
5 gr, Potass Bitart, 1 qr) (Sir
A Garrood)
Tannin, 22 gr
Tar, 1 gr Tar, 1 gr
Tar with Codeine (Tar 1 gr
Codein, 1/8 gr)
Test "Tabloids" (for preparing Fehling's Solution) Thirst Warburg Tincture, 30 min in ea warourg Incture, 30 min in ea Zinc Permangunate, 188 gr Zinc Sulphate, 1 and 10 gr Zinc Sulphate, 1 and 10 gr Zing Sulpha carbolate, 2 gr Zingib Fort Tinct 5 min "Zymine" (Fairchild) "Zymine" Comp (Fairchild) "Zymine" 2 gr. Bitmuth Sub nit, 8 gr. Pulv Ipecac, 110 gr)

† May be had sugar or keratin-coated. BURROUGHS, WELLCOME & Co., Manufacturing Chemists, Snow Hill Bdgs, London

white sugar)

# "HYPODERMIC 'TABLOIDS' ARE VERY SOLUBLE AND NOT AT ALL IRRITATING."—The Lancet

b Aconitine Nitrate	1-260 gr
a Apomorph Hydroch	T-75 00
a Atropine Sulphate	, 1-15 gr.
I-150 gr , 1-100 gr	, 1-60 gr
b*Caffeine Sodio-salicyl	1-2 gr
α Cocaine Hydrochlorate 1-10 gr 1-6 gr, *1-4 gr	* a cr
b Codeine Phosphate	1-4 gr
b Cole icin	1-100 gr
b Cornutin Hydrochloride	1-60 gr
b Curare a Digitalin, Crystalline	1-12 gr 1-100 gr
b Ergotinin Citrate	1-100 g.
1 100 gr,	1-200 gr
a Eserine Salicylate	1-100 gr
b Homatropin Hyd a Hydrarg Perchlor	1-250 gr
1-60 gr.	, 1-30 g1
b Hydrarg Sozoiodol	1-4 gr
a Hyoscine Hydrobrom.	*
1-200 gr, *1-7; gr, a*Hyoscyamine Sulphate	*1-10 gr 1-80 gr
b*Hyoscyamine Sulphate	1-20 gr
6 Morphine Bimeconate	_
1-8 gr , 1-6 gr., 1-4 gr	r, 1-3 gr
a Morphine Hydrochl 1-6 g a*Morphine Sulphate	r , 1–4 gr 1–12 gr
1-8 gr , 1-6 gr , 1-4 gr	, 1-3 gr
a Morphine Sulphate	1-2 gr
Morphine Sulphate with Atropine Sulphate 1-12 &:	
1-8 & 1-200 gr. 1-6 & 1	1-250 gr,
1-8 & 1-200 gr, 1-6 & 1 1-4 & 1-150 gr, 1-3 & 1	-120 gr,
*1-2 &	1-100 g1
α Nitio-glycerine	1-250 gr 1 10 gr
Pilocarpine Hydrochl     Pilocarpine Hydrochl	1-6 g1
*Pilocarpine Hydrochl	1-3 gr
5*Quinine Hydrobrom.	1-2 gr
b*Sclerotinic Acid b* Sclerotinic Acid	1-2 gr 1 gr
5 Sodium Phosph Co	ı gı
b*Sparteine Sulphate	1-2 gr
6 Strophanthin	1-500 gr
b Strychnine Nitrate 1-15 gr a Strychnine Sulphate	, 1-10 gr
1-150 g1 , 1-100 gr	, 1-60 gr
1-150 g1 , 1-100 gr Hypodermic "Tabloids"	supplied

Hypodermic "Tabloids" supplied in tubes of non - actinic glass, each contain ing 20 "Tabloids" (except those marked with asterisks, which contain only 12) Those marked α, at -/6 per tube, those marked δ, -/8 per tube

‡ The prices of Pilocarpine "Tabloids" 1 10, 1 6, and 1-3 gi, are 1/4, 2/1, and 2/6 per tube respectively

The fact cannot be too pointedly emphasized that solutions for hypodermic injection should in all cases be prepared at the moment, and it is to enable this to be done with a minimum of trovible and risk that Hypodermic "Tabloids" were introduced They are tiny discs, each containing an absolutely exact quantity of alkaloid,

#### and the second second

combined with a perfectly soluble and innocuous base. It takes only a few seconds to produce a perfect solution, and we feel justified in saying that no other method for the ready preparation of solutions at the time of using offers the same advantages to the practitioner as the employment of Hypodermic "Tabloids". They may also be used sublingually with great advantage in some cases.

#### Hypodermic "Tabloid" Pocket Cases.

These Cases comprise complete Hypodermic Equipments, but at the same time occupy so little bulk that the presence of one of them in the pocket is scarcely felt. Each case contains a carefully selected syings with two needles, a selection of Hypodermic Agents in "Tabloid"



PRICE.

fitted complete, 14/-

form, and a Mortar and Pestle for crushing the "Tabloids." The absolutely reliable chaiacter of Hypodermic 'Tabloids," their accuracy of dosage, their physiological activity, and their freedom from irritative or acid

salts, have been demonstrated countless times The accompanying block represents the "Miniature" case, designed to hold in addition to the syringe and needles, fitten tubes of assorted Hypodermic 'Tabloids' It measures only 3 × 2½ ×3 inches, and is the smallest and most compact case yet produced

#### BURROUGHS, WELLCOME & Co.,

Manufacturing Chemists, Snow Hill Buildings, LONDON, E.C.

Cable and Telegraphic Address—"Burcome, London."

## Ophthalmic Medication

#### List of Ophthalmic "Tabloids."

In ordering or prescribing it is necessary to quote the distinguishing letter only, i.g.—

#### R "Tabloidi" Ophthalmici, A (B W & Co)

,	
A Atropia Sulph	1-200 91
B Atropia Sulph	1-200 81
Cocune	1-200 g1
C Coc une	1-20 21
D Atropia Sulph	1-20 g1
i Homatrop Hydroch	1-40 g1
b Escrinc Salicyl	1-100 51
G (Eserme Salux)	1~200 दी
( 11 spacoe une Fixunoch	1-100 81
II Homatrop Hydroch	-100 41
I Hydrug Perchlor	I 1000 g1
k Pilocupine	t 400 gt
L I ropreocame Hydroch	t-30 gr
M Pilocripine	I-500 E1
Cocaine	1-200 gt
N Homatrop Hydroch	1 600 gr
O Homatrop Hydroch	1-240 gr
	1-24 gr
*P Bornere Acid (per-	
fumed with Otto	
of Rose)	ó gr
() Duboisine	1 250 gr

Zine Sulphate 1 250 gi Scopolamine Hydrobro 1-200 gi

Sutflied to the Nedwal Profession in tubes, each containing 25 "Iablaids," (except (\* D. h. (r. L. (\*) s, which emtain 6" Lablaids," only) at od for tube



#### Ophthalmic "Tabloids."

These are introduced to supply the long felt want of a method of treating complaints and iffections of the eye, which is easy of at plucition, certain in effect, and free from objections from the patient's point of view. The frequent instillation of a solution is very di tie sing, and is often even injurious, since it distribs the absolute rest which is so important a conside ition in the treatment, besides, only a small quantity is retrined, and that quantity is of indicated by the lachymal secretion as to hecome very partial in effect. Ophthalmic "Tabloids" obviate these defects, and constitute a perfectly senie and clubelle mode of diministering remedies to the eye. They are mainteen diese of the table mode of memorial diese of the table mode of programs. minute discs of the thickness of note-paper, extremely delicate in appearance, very soluble, and prepared with a perfectly innocuous and non-unitating basis. Each "I ibloid" holds a definite quantity of alk iloid With two exceptions they are intended to be inserted within the conjunctival sac as they are, and when placed in situ, the eye being kept closed for a few minutes after insertion, they are immediately dissolved in the secretion and diffused over the suifice of the eve

#### Ophthalmic Case.

This case measures  $2\frac{1}{4} \times 1\frac{3}{4} \times 14$  inches, and contains a medicine dropper, I blood-holder, two camel-hair bushes, a small glass mortal and pestle, and nine tubes of Ophthalmic "Tabloids." Nothing so complete, practical compact, and portable has hitherto been placed at the disposal of the medical profession in this direction. To practicular must other places remote from the chemist, the Ophthalmic Cise must necessarily become a vaide mechan, since, while it is so small that it can be a urised in the peaket almost without its resence being felt, it comprises a representative selection of those agents generally called for in ophthalmic practice, with apparatus for applying them.

Supplied to the Medical Profession, fitted complete, 7s 6d.

# BURROUGHS, WELLCOME & CO., Manufacturing Chemists, Snow Hill Buildings, LONDON, E.C. Cable and Telegraphic Address—"Burcome, London."

#### "THE KEPLER EXTRACT OF MALT SOUND AND RELIABLE."

-British Medical Tournal

THE many and varied conditions of disease in which the Kepler Extract The of Malt as a food is indicated, and the benefits which are to be obtained from its LANCET use, sufficiently explain the wide popularity it his attained It is manufactured Reports: from barley, and I as ley only and our perfected machinery and long experience have cnabled us to obtain a pro-"The Kepler duct exhibiting all the nutritive principles of the giain

is the

and.

in this

country.

main advantages of a good Malt Extract are Malt best known that it is highly nutiitious, readily assimilated, and rich in that unportant factor, diastase,

CPLER

ALT EXTR

which converts starchy food into maltose and

other saccharine and easily the largest digested substances It 15, consequently, an effective aid to digestion, and can be tolerated by the stomach used when cod-liver oil alone would be out of the ques-Freedom from coarse t1011 Extract irritating elements makes it the safest aliment in inflammatory conditions of disease, it is an admirable demulcent in irritable ٥f

debilitated conditions gen-erally it is unrivalled as a food and digestive aid Malt. Kepler Extract of Malt 15

states of the throat, and in

advantageously administered to children in the later stages of in'aicy, when they are being partially fed on bread, gruels, and other farmaceous food. is it prevents the occurrence of digestive derangements so common to infant life, and increases the nutrient value of the food It is as delicious as honey, as nutritious as cod-liver oil, and is assimilable as mother's milk

It is 2.8 distinct an A dessert-

advance

ın

added to a plate of warm gruel is quite sufficient to digest the starch When cow's is given with a little Kepler Extract it does not curdle and disagree, as

spoonful of it

milk Therapeutics as was

the

Many reports have been made by physicians show-introduction ing that infants fed on milk so prepared progressed favourably when nothing else agreed

the case

HE CON

KEPLER

The Kepler Extract possesses remarkable emollient It also acts as properties a natural regulator of the bowels, and is useful in small doses in diarrhoa and catarrh of the bowels, as it is readily assimilated when other foods are re-jected. In large doses it 15 an efficient aperient in

of Cod

Liver

Oil."

The Kepler Extract of Malt supplied to the Medical Profession by all Chemists and by the Wholesale Drug Trade, in 11b and 11-lb bottles, at 18 8d and 3s per bottle

constipation

BURROUGHS, WELLCOME & CO., Manufacturing Chemists, LONDON.

NEW YORK: Rhinelander Building, Rose and Duane Streets.
MELBOURNE: 456, Collins Street, West.
PARIS Pharmacie Centrale de France.
BRUSSELS Chas. Delacre & Go.
TRIESTE: Pharmacie Serravallo.
VIENNA' The Feld Apotheke, Stefansplatz, 8.
BUDAPEST: Pharmacie Torok.

Cable and Telegraphic Address - "BURCOME, LONDON"

#### "The KEPLER SOLUTION is an IDEAL FORM FOR THE ADMINISTRATION OF FAT."

-British Medical Journal

# REAL.

Medical

Men

who

ha.ve

tried

it

personally

and in

their

own

families

accord

the

THE value of Cod-liver Oil as a tissue-forming, force-producing, and nutri-tive food was formerly so TESTIMONY greatly impaired by difficulties attending its administration that it is greatly to be wondered at that it did not altogether go out of And this is also remarkable on another ac-count Plain Cod-liver Oil has been shown to be assimilated to such a partial extent that the unpleasant and nauseating effects produced by taking it into the stomach must have been scarcely compensated by the benefit derived But even

KEPLER

TO P. TEE

in the early days of its mate important position as a medicinal agent was foreseen, so pharmacists set about tiying their best to devise, in the

fust place. methods of iendering it as pure as possible, and in the second place, means of sophistication so as to cover the nauseous taste, to render it comparatively palatable, and to enable as large a proportion of it as possible

to be absorbed into the system to it

The former of these objects was not specially difficult of attainment, but the latter problem was for years tackled in vain. It was attempted to emulsify the Oil with gums, alka-lies, &c . but although pre-

highest parations so treated were praise. less objectionable to swal-

low, when taken into the stomach the oil globules were found to coalesce through the warmth of the body, and the consequent eluctations were as bad as when the oil was administered per se Still, for a long time emulsions held the field, and were regarded as the most practical method

of preparing Cod-liver Oil
But the Kepler Solution
of Cod-liver Oil in Extract of Malt was the final "so-lution" of the difficulty The reason for past failures was at length revealed Cod-liver Oil had been treated as a drug, whereas

should have been treated as was a t length apparent to us that the onlyra-tional method of taking it was with another food, as

oils and all other fats are taken, and we resolved to test the capabilities of the Kep'er Malt Extract as a medium for the administration of Cod-liver Oil Our experiments were entirely successful, since it was found that by centrifugal motion induced by ma-chinery Cod-liver Oil was completely dissolved in Extract of Malt, the presence of the latter materially aiding the assimilation of the Oil and at the same time thoroughly masking its unpleasant taste and removing the possibility the production of nauseous effects.

The Press

speaks

of

it

as

"The

most

palatable

and

easily

digested

of

any

form

αf

Cod

Liver

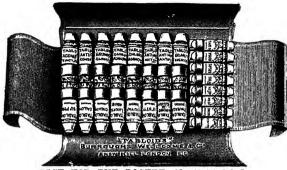
Oil."

Kepler Solution of Cod-liver Oil in Mall Fatract supplied to the Medical Profession by all Chemists and by the Wholesale Drug Trade, in 1-lb and 11-lb bottles, at is 8d and 3s each.

#### WELLCOME & Burroughs, Manufacturing Chemists, Snow Hill Buildings, LONDON, E.C. Cable and Telegraphic Address-"Burcome, London."

#### THE COUNTRY PRACTITIONER AND "THE NEW PHARMACY."

See "Butish Medical Journal," Nov 3, 1894, page 1013



CASE FOR THE POCKET .- No 16 Modified.

Outside measurements, when closed, 8½ × 6 × 1½ in Contains sixteen 3 dr and eight 1 dr phials Price, fitted with "Tabloids" from 35s

The medical man whose practice lies in a rural district extend ing over an extensive area, far removed from a chemist, has hitherto found it great trouble a. to promptly ade and quately provide his patients with medi quatery provide his patients with medicines. He must either require them to send long distances, on he must convey with him on his rounds such an assortment as he is likely to want But a sufficient quantity of the old fashioned forms of medicine powders, mixtures, &c is extremely cum brous and awkward, if not completely impos sible, of transit, and it is in this respect that the advantages of "I abloids" become so manifest and con spicuous It may fairly

be claimed that the "Tabloid" system of preparing drugs has effected a complete revolution in the fitting and equipment of Medicine Cases and Chests Those supplied by us, of which the accompanying illustrations will give some idea, are eminently portable, practical and useful, and bring about great saving of time, trouble and space By using "Tabloids," everything necessary is in the smallest possible bulk, and, besides this, may confidently be relied upon to produce in full measure the

measure the desired physic logical effect The virtues of "Tabloids" them selves need not be need commented on here, since they are sufficiently well known and well known and recognised, suf-fice it to say that for porta-bility, ready so-lubility, prompt and unimpeded action, absolute purity, moder ate cost, conve nience in form, and accuracy in dosage they have received testimony from the medical profession every part the world Th ot do away with the necessity for weighing and measure ment, and this fact alone is which be over rated.



HAND OR CARRIAGE CASE .- No 20

advantage Outside measurements, when closed, 18\frac{1}{2} \times 9\frac{1}{2} \times 5\frac{1}{2} \times 10 \text{ in Contains eight 2 oz stop h cannot pered, ten 1 oz , twelve 6 dr , and fifteen 4 dr, phials, with spaces and Loops ver rated.

Tabloids, &c., from 120s

We shall be happy to send list with prices and full particulars of Medicine Cases to any Medical Man on request

BURROUGHS, WELLCOME & Co.,
Manufacturing Chemists, Snow Hill Buildings, LONDON, E.C.

Cable and Telegraphic Address—"Burcome, London."

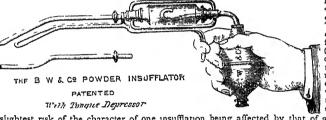
D

# POWDER INSUFFLATOR.

(PATENT.)

THIS new instrument presents conspicuous advantages over all the old forms. It is neat, light highly finished, and altogether the most satisfactory form yet offered for the application of dry powders by insuffiction to the nasal and oral mucous surfaces, and to soies, abscesses, &c., on the outer skin

The advantage of having interchangeable cylinders to hold different powders is one which will be greatly appreciated in practice. The delay in emptying and refilling old-form reservoits—not to speak of the great difficulty, frequently met with, in dispelling the unpleasant odour of a preceding insufflation (ex. grat. Iodoform)—was an objection levelled at in



sufficient type arriver type. The exchange of one powder for an other (such as no then desirable either in the same or in a different case) is the work of a moment, and there is not the

slightest risk of the character of one insufflation being affected by that of another

As will be seen from the sketch, the method of handling the insufflator is natural and easy so that the operator is enabled both to hold the institutent and to bring about delivery of the powder with one hand, leaving the other hand tree—a very appreciable advantage. Again, each institutent is provided with two forms of delivery tube, which are easily ind quickly exchangeable. A very effective attachment for depressing the tongue completes the institutent. It is to be noted that the tongue depressor as designed for use in connection with this insufflator is of a unique pattern and easily detachable.



In accordance with a suggestion from Di Brownlow Martin (who speaks highly of the new instrument in his recent work, "Diphtheria, and its treatment by Magnesium Sulphite") we have introduced an improved tube having a furcate end, the advantage of which will be at once obvious to medical practitioners, the insufflation being delivered in two nebulæ proceeding at an acute angle

The B., W. & Co. Powder Insufflator, with One Cylinder	10/-
Tongue Depressor for same	2/6
Extra Powder Cylinders, each	2/-
Case to contain Two or Three Powder Cylinders	1/6
Case to contain Four Powder Cylinders .	1/9
The B., W. & Co. Furcate Throat Tube	2/-

Can be obtained from all first-class Pharmacies, and wholesale Drug houses.

MANUFACTURED BY

#### BURROUGHS, WELLCOME & Co..

Manufacturing Chemists, Snow Hill Buildings, LONDON, E.C.

Cable and Telegraphic Address - "Burcome. London."

#### EMOL-KELEET.

E MOL-Keleet is a purified, natural, emol- | it effected an immediate softening influence lient, absorbent, dusting powder of impalpable texture, as soit as down to the touch It in no way resembles the ordinary and unstable compound, astringent, or starchy

absorbent powders
Chemically, Emol-Keleet may be said to be closely allied to superior qualities of Fullers Earth, yet it is quite distinct from the usual varieties of that substance, in that it contains a considerable percentage of Steatite (known commonly as soap stone) as well as of Silica, Alumina, traces of Cal-cium Salts, and an appreciable trace of Ferrous Oxide

The delicate flesh-pink tone of Emol-Keleet—one of its much admired characteristics—is due to the presence of Ferrous Oxide, while its soft silky feel is largely occasioned by the presence of Steatite Emol - Keleet, though

comparatively new the medical profession, has been known for some little time to a limited circle, and has been the subject of in vestigation by competent hands, both chemico techni cologically and therapeutically but it was not brought specially to the attention of the profession until the 1893 meeting of the British Medical Association, Newcastle-on-Tyne when an exceedingly interesting paper was read during the session of the Dermatological section, by the president, Dr Allan Jamie son, of Edinburgh The

interest aroused by the therapeutic notes given in his paper by this distinguished authority on skin diseases, brought Emol-Keleet prominently into view, and a brief recapitulation of the points of the paper

re erred to, may be useful

It was shown that as dusting powder,
Emol Keleet a perfectly innocuous and inoffensive material, is therapeutically superior to any previously known. When placed upon the tongue—one of the simplest and vet most severe tests as to utter impalpability which can be applied to a powdered substance—there was an entire absence of

any sensation of grittiness

It was noticed also, as a remarkable property of this powder, that when a small quantity say a teaspoonful or so, was added to a basinful of hard water-such as one frequently meets with in limestone areas- | profession, 9d each

Used in this manner with warm water, Emol-Keleet acts as a natural soap, cleansing the skin thoroughly, and at the same time

leaving it soft and smooth

The learned president pointed out as evidence of the activity and effect of this compound that the workmen engaged in its purification found that their previously horny palms became so much softened by continued contact with it, that they could not use their hands for rough work with-out incurring severe friction. This fact led Dr Jamieson to try the effect of Emol-Keleet upon horny accretions encountered in some states of keratosis of the palms and

When mixed with water to the consistence of a paste, and painted on pretty thickly — evaporation being prevented by covering the whole area with oiled silk,

gutta-percha, or impervious tissue—it was found that the epidermal masses became softened and loosened, and could actually be peeled off painlessly, eventually leaving the parts soft, smooth, and of a leaving the part so treated natural pinkish hue In view of this experience, it is probable that Emol-Keleet will have a very wide sphere of usefulness in the treatment of many skin affections both local and constitutional, for it possesses many qualities which will be highly appreciated by dermatologists



Used as an ordinary dusting powder, it was found to possess anti-pruritic properties and relieved very markedly ing of the skin now and t the then complained of in urticaria or during the eruptive period of measles. The absorbent qualities of Emol-Keleet with its mild astringent tendency, stamp it as a perfectly harmless and absolutely un-

equalled dusting powder In moist or weeping conditions of the epiderinis, such as one encounters so often in eczematous or erythematous affections, the application of Emol-Keleet is followed by beneficial effect From the dermatologist's point of view Emol-Keleet is a most useful addition to the list of remedial agents used in the treatment of cutaneous diseases Supplied in metal boxes Price to the

#### WELLCOME Burroughs, &

Manufacturing Chemists, Snow Hill Buildings, LONDON, E.C. Cable and Telegraphic Address-"Burcome, London."

# "TABLOIDS" OF PURE TEA

(TRADE MARK)

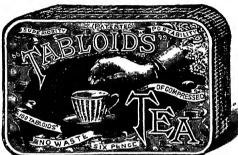
(PATENTED.)

These "Tabloids" are prepared from perfectly pure leaves, treated by a special process, which renders them less injurious to the health than ordinary teas.

©%©

CEYLON

ത്ര



©₩©

INDIAN BLEND.

*©*‰©

# PRODUCE A DELICIOUS CUP OF PURE TEA IN ONE MINUTE.

By using "Tabloids" of compressed Tea, an absolutely PURE Tea with delicacy of flavour and aroma and uniformity of strength is obtained

By using Tea "Tabloids" the consumption of Tea in the household, workshop, or wherever it is employed is easily controlled. There is no waste, as all the uncured and useless part of the leaf is removed

Tea "Tabloids" are made by a special process from the finest Ceylon and Indian Teas only, nothing whatever is added. The "Tabloids" are always the same, both as regards quality and quantity, therefore a uniformly good cup of Tea is secured.

DIRFCTIONS—If making in a Cup, put two or more "Tabloids" (according to strength required) into a clean cup, fill up with freshly boiling water, stir for a couple of seconds, and allow to settle. If the cup be covered during infusion the result will be better. If using a Tea-pot, put in as many "Tabloids" as may be necessary—two or three for each cup—according to taste. Pour on freshly boiling water to the quantity required. Stir for a couple of seconds and allow to stand for a minute or two. Pour out in the ordinary way without shaking

MANUFACTURED BY

# BURROUGHS, WELLCOME & Co., SNOW HILL BUILDINGS, LONDON, E.C.

### MACKEY, MACKEY & CO.,

Wholesale Druggists, Manufacturing Chemists.

MISTURA BISMUTHI COMP. (Mackey's Original) Composition Liq Bismuth, Tr Nux Vomica, Morphia, Hydrocyanic Acid, and Spt Chlorof, price 7/6 lb

This reliable preparation contains Bismuth in its most effective form for the successful treatment of Atonic and Irritative Dy-pepsia, Gastric Catarrh, and Pyrosis accompanied with Pain after food. It is highly useful in some forms of Vomiting, and has been used with success in the Diarrhoea or Constipation connected with Debilitated Conditions of the Alimentary Canal

Alternative Canal The Lancet says — "Bismuth could hardly be given in a better form "
"I have used the Mistura Bismuthi Co, prepared by Messrs Mackey, Mackey & Co, and have found it most efficacious, and far superior to any other preparation of Bismuth that has come under my notice "— C. E. B. — —, M. R. C. S. &c.
"Mackey's Mistura Bismuthi Co is an improvement on other preparations of Bismuth,

and more acceptable to the stomach J P —, F R C S I have found it a very valuable preparation'

#### MACKEY'S MISTURA

Is particularly successful in all cases of vomiting in Pregnancy, of Irritable Stomach, Dyspepsia, &c It allays vomiting (no matter the cause) when all other remedies have failed

Dyspepsia, or It allay vointing (no matter the cause) when all other remedies have lailed go per lb, 5s per lb, 2s go per lb of I have used it both in public and private practice, it is particularly successful in all cases of Irritable Stomach, Dyspepsia, &c, and I have found it allay vointing (no matter the cause) when all other remedies have failed —RICHARD T W SMITH, FRCS, &c, PECKHAM
"I have administered your Mistura Cerii Co in cases of most obstinate vointing, and found it most efficacious"—John Wilson, FRCS

#### MISTURA CASCARÆ SAGRADÆ

Prepared from Selected Barks of RHAMNUS PURSHIANA and RHAMNUS FRANGULA, flavoured with Aromatic Syrup Dose 31 to 31v

To obtain the best results from the Barks of Rhamnus Puishiana and Frangula it is necessary that they should be collected, not only at the right season of the year, but of the proper age, when the bark is neither too young nor too old Much of that sent to this country consists of bark of all ages, and is consequently not always to be relied upon In preparing our Mistura Cascaræ Comp we use only that bark which has arrived at proper maturity, thus ensuring the best results, the menstrium employed being the most suitable for extracting the aperient properties of the balk without clusing precipitation when diluted. It is agreeably flavoured with Aromatic Sylup, and forms an excellent lemedy for Habitual Constipation when continued in doses of gi, or as an aperient or cathartic, in doses of gi, to giv

"The value of Cascara Sagrada is now very generally recognised Mackey, Mackey and Co's Mistura Cascara Sagrada is evidently prepared from the finest of selected material, and we confidently commend this excellent preparation to the notice of the profession "-Laniet, August 29th, 1891

#### A non fatty Jelly prepared with). GELATUM EUCALYPTI the finest Eucalyptus Oil

As an Antiseptic in handling infectious cases

For Inhalation in Bronchitis, Whooping Cough, Influenza, &c As a Disinfectant wash for Wounds, Sores, for general disinfection, and use with the spray For Coughs, Colds, and Sore Throat

For Spiains, Bruises, Rheumatic Stiffness of Joints and Muscles, and in Erysipelas

Makers of Soluble Gelatine, Pearl-, and Sugar-coated Pills, Tabella, Hypodermic Inject 10ns, Pessaries, Suppositories, Bougies, Pastils, Fluid Extracts Oleates of the Metals, &-

Drugs and Chemicals of Best Quality New Remedies and Special Pharmaceu-Price Lists and Samples on application tical Preparations

Grange Road, BERMONDSEY, S.E. *175*.

#### A Speciality!

### SEGAR'S BEER

PURE BEER.

#### A BOON

Alike to those who, having Weak Digestion, require a

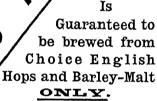
DIGESTIBLE ALE,

and to those who, having a sensitive palate, desire a

#### DELICATE ALE

for their use.

Many Testimonials to this effect received.



The best Guarantee that
Segar's Beer is PURE BEER
brewed from English Hops
and Barley-Malt ONLY, is
the fact that H. Segar & Co. can
PROVE that they have NEVER
used any substitute whatever for
Choice kinds of English Hops and
Barley-Malt in the manufacture of Beer.

Dr. Gilbert D Stitherland, the well-known Food Analyst, of London, says "Barley-Malt furnishes digestion-promoting properties which no other material used for brewing purposes possesses."

# H. SEGAR & CO., BEVINGTON BUSH BREWERY, LIVERPOOL

ASK FOR SEGAR'S ALE.

# THE PURE NATURAL MALYERN SPRING WATER

(THE "ALPHA" BRAND.)

A LUXURY IN INVALID NURSING.

A Refreshing Draught of Purest Spring Water always at hand.



It is an excellent sanitary practice to drink this reliable Sping Water at all meals, and to keep a bottle in every bedroom for a morning and evening draught. Secured by its glass stopper from every taint, it is safe and delightfully refreshing. It prevents the necessity of resorting to the bedroom water-bottle (so fraught with danger)

The Malvern Water was always highly valued by the late Sir ANDREW CLARK, who drank it for many years, and recommended it to innumerable patients.

The exceptional purity of this Water renders it valuable under many circumstances, and especially where the use of Calcareous Waters is contra-indicated.

It is most useful for diluting medicines, being always at hand and protected from deterioration

It should also be known that the Malvern Water makes the best possible Tea, extracting the flavour in quite a remarkable manner. In fact, for iniusions generally, and every form of Invalid Cookery, it is invaluable

The Malvern Water is bottled at the famous Springs, by W & J Burrow, in Wine-quart Stoppered Bottles The Water is Four Shillings per Dozen, and Six Dozen are sent by rail, carriage paid

CAUTION —To insure having the GENUINE Water see the "ALPHA" Trade Mark on the Labels over the Stopper of every Bottle

Address-W. & J. BURROW, The Springs, MALVERN.

BURROW'S

"ALPHA"



BRAND

# SELTZER,

AND

Malbern Soda, Potash, and Lithia Waters,

Are of surpassing excellence being all prepared with the marvellously pure Water of the Malvern Springs (700 feet above sea level—beyond reach of impurity) The special attention of the Medical Proession is respectfully invited to these matchiess Mineral Waters. Their recommendation of them in the past has been much valued by the Sole Proprietors—

W. & J. BURROW, The Springs, MALVERN.

SIX DOZEN CARRIAGE FREE.

Telegrams: "SPRINGS, MALVERN."

MALVERN

Bigbest Awards.

PARIS - - - 1889.

VIENNA - - - 1891.

LONDON- - - 1892.

GENEVA - - 1893.



BY SPECIAL APPOINTMENT T HR H PRINCE OF WALES Hanoyer - - 1893. Rome - - 1894.

Grand

Diploma of Honor, ANTWERP, 1894.

# BRAND & CO.'S Specialties for Invalids.

### ESSENCE OF BEEF,

Also of MUTTON, VEAL and CHICKEN.

THESE Essences consist solely of the juice of the finest meats, extracted by a gentle heat, without the addition of water or of any other substance whatever. They contain, therefore, the most stimulating and exhibitanting properties of the meats, calculated to invigorate the heart and brain immediately, without any fatty or other elements which require solution in the stomach. They have been introduced into medical practice as a stimulant, after loss of blood of any cause, and in cases of nervous exhaustion and enfeebled digestion.

# MEAT JUICE,

Prepared by BRAND & CO., from the finest selected ENGLISH MEAT.

LANCET, Jan. 7th, 1893:

"This is a powerful, nourishing and stimulating fluid, obtained from prime beef by submitting it to pressure in the cold—a method of preparation which must be regarded as highly satisfactory, for, according to our analysis, the valuable principles of the meat have not only been preserved intact, but the fresh, agreeable and natural flavour of beef has also been retained. On warming, it turns quite solid from the presence of unaltered albumen. The alimentary value of the preparation is evident."

To be obtained of all Chemists, or direct of

BRAND & CO., MAYFAIR, LONDON, W.

#### THE NEW REMEDY.

One of the Most Remarkable Curative Remedies of the time

# PITKEATHLY CUM LITHIÂ WATER.

WHICH HAS WON A WIDE REPUTE AS A

# CERTAIN REMEDY FOR GOUT, RHEUMATISM. SCIATICA. and LUMBAGO.

IT IS ALSO GOOD IN

CONGESTION OF THE LIVER AND KIDNEYS.

For ACIDITY, INDIGESTION, and MORNING SICKNESS, with Coated Tongue, while as a TONIC DRINK it is refreshing, invigorating, and health-restoring.

Two or Three Half-Bottles may be taken daily, either alone or with a little Spirit, and before, with, or after meals

Each Half-Bottle represents 5 grains of Carbonate of Lithia

# PITKEATHLY

THE PRINCE OF TABLE WATERS!

Wholesale:—INGRAM & ROYLE, London, Liverpool & Bristol, or from the Sole Proprietors—

REID & DONALD, PERTH.

<sup>&</sup>quot;Pitkeathly acts as a Tonic and is particularly suitable as a Table Water"—The County Gentleman

<sup>&#</sup>x27;Those who desire a pure exhibiting water will find in Pitkeathly an admirable beverage "—Health

<sup>&</sup>quot;Pitkeathly is an excellent Table Water, differing from most mineral waters, which have depressing influences"—The Court Journal
"Amongst its other good qualities, Pitkeathly softens whisky and brings out its best attributes"—Naval and Mulitary Gasette

To be had in Bottles, Half Bottles, and Quarter Bottles at all the principal Hotels, and sold by Chemists and Wine Merchants throughout the World

# Bouril Beef Jelly.



HE new pack, adopted for this preparation, enables the beauty of the Jelly to be seen before opening. It is hermetically sealed, yet easier opened than any other package You simply puncture the top with a knife, bodkin, or other sharp instrument, the vacuum is broken and the lid released. The Jelly will be found quite pure and free from all injurious contact with metal

mmmmmmmm.

When this package once secures the attention of the Medical Profession no other will

be tolerated, as there is an increasing anxiety in the public mind about the action of tin and solder upon articles of food.

#### BEEF JELLY

is made from fresh English Ox Beef. It does not contain, as Bovril does, a high percentage of the albuminous or nitrogenous properties of meat; none of these jellies do, in spite of the veneration our parents had for calf's foot and other meat jellies.

This Essence of Beef can, however, be safely relied upon as an admirable stimulant and restorative in cases of nervous exhaustion, loss of blood, sudden shock, or in severe illness where no other food can be tolerated by the patient

# BOWREE, KOMPUET, SPECIALISTS.

DIRECTORS-

The Right Hon. LORD PLAYFAIR, KCB, LLD. ROBERT FARQUHARSON, Esq, MD, MP, and others.

BRANCHES AT--Manchester, Liverpool, Birmingham, Newcastle, Hull, Leeds, Edinburgh, Glasgow, Dublin, and Brussels.
 AGENCIES AT--Sheffield, Nottingham, Derby, New York, Paris, Christiania, Stockholm, and Madrid

### DR. LAHMANN'S

Warm, Non-Shrinking, Non-Exciting or Non-Irritant, Durable and Inexpensive

# <u>COTTON-WOOL</u> <u>UNDERCLOTHING</u>

Can be safely recommended for all, and will be found invaluable by persons of a sensitive skin, or of a nervous temperament.

The following is the report (after due trial) of THE LANCET:-

"The advantages claimed for the Cotton-wool Underclothing are lightness, porosity, warmth, non-irritability and non-shrinkage. Our experience fully sustained these claims. Another advantage these garments should possess is the resistance they offer to the attacks of moth Persons who have sensitive skins will approve of the material, as it has a soft, silky texture. It can be obtained in various thicknesses for all seasons of the year, and when washed has no appearance of shrinkage."

Price List, Medical and other Testimonials, Patterns, &c., Post Free from

# THE LAHMANN AGENCY, 15, FORE STREET, LONDON, E.C.

LAC BISMUTHI. LAC BISMUTHI ET CERII.
Syr. Hypophosph. Hydrobrom.
Miniature Throat Spray. Chlor. Ammon. Inhaler, &c.

SYMES & CO., LTD.,
Manufacturers of Pharmaceutical Preparations,



The flexible Cartridge is not only an absorbent but effectively filters the smoke, a clean one being renewed after every two or three pipes, it follows, therefore, that there cannot possibly occur any accumulation of impure and injurious matter.

Pipes from 3/6 upwards, including a Box of 50 Cartridges.

Pipes from 3/6 upwards, including a Box of 50 Cartridges.
"Biltor" Cigarettes on the same principle (Turkish Tobacco), 7/- per 100.

CATALOGUE & PRICE LIST ON APPLICATION.

THE "BILTOR" CO., 93, Oxford Street, LONDON W.

# 'Reliance" Stethoscope

(PATENTED)





Extract from The Lancet, September 8th, 1804—The accompanying illustration shows a very portable binaural stethoscope. It possesses the following advantages—viz, being telescopic it fits into a very small compass, the metal tubes are made oval to prevent turning round, the metal is the same colour throughout and does not corrode, the ear pieces are made of india-rubber, and are therefore softer for the ears, and the chest-piece has an india-rubber air-pad cover. When folded it fits—and in a very small compass—into a leather case. The Patentees and Makers are Messis. Arnold & Sons, of West Smithfield, London.

Vule THE BRITISH MEDIC 1L JOURNAL, Nov 31d, 1894

Price, complete without case - 12/6 Ditto, in portable leather case - 14/-

MANUFACTURED BY

# arnold & sons,

By appointment to Her Majesty's Government, The Honourable Council of India, The Admiralty, The Crown Agents for the Colonies, Her Majesty's Prisons, Foreign Governments, Royal Chelsea Hospital, St Bartholomew's Hospital, and the principal Provincial and Colonial Hospitals, etc.

# 31, WEST SMITHFIELD, AND LONDON. 1, 2, & 3, GILTSPUR STREET,

(OPPOSITE SI' BARTHOLOMEW'S HOSPITAL.)

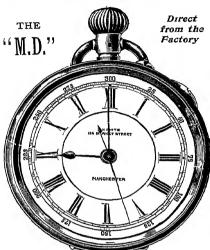
(ESTABLISHED 1819.)

Telegraphic Address: "Instruments," LONDON.

Telephone No. 6,518.

#### TO MEDICAL MEN.

### A Magnificent Investment



Lies in front of you to-day, in which the outlay of a small sum of money will bring outlay of a small sum of money with orange you an immediate and splendid return In these keenly competitive times, when personal appearance goes so far to make or mara professional man's fortune in life, every attention should be paid to details likely to convey an impression of prosperity and success Probably nothing stamps a man so much as his watch, if he pulls an ordinary-looking silver one out of his pocket, people are certainly inclined to under estimate him, but let him prove the possessorofasplendid gold watch, and he immediately ascends in their estimation Of course, many people will say "quite tiue, but only ich men can have magnificent gold watches, they are so costly!" Under ordinary conditions this is quite correct, but any medical man can, in purchasing direct from H WHITE, secure a magnificent and superb gold watch of matchless appearance and perfect as a time keeper, and in every particular, at exactly the same price as an ordinary shopkeeper charges for a silver one By dealing direct with the great manufacturer a saving of 50 % (one half) is absolutely guaranteed to every purchaser

#### Every Professional Man should have a Gold Watch.

The "M.N." £4 17 6

USUAL RETAIL PRICE

Also supplied in

Heavy 18ct Gold Case at £7 15 0

H WHITE'S superb ? plate Lever Centre Seconds Chronograph (as drawn), fitted in strong solid 14-carat gold cases (stamped), with thoroughly well finished lever movement, carefully jewelled and fitted with compensation balance, sunk white dial, divided into fifths of seconds Flat crystal glass and gold hands Plain case for monogram, which can be splendidly engraved for 15 extra A princely watch equal in appearance and as a timekeeper to any £15 of £20 witch Supplied by the manufacturer direct to the wearer at half the retail price

Warnanted for seven years Money refunded in full within ten days of purchase if not approved of—impossible

The above watch sent, carriage paid, at our risk, to any part of the United Kingdom, on receipt of sentitance (cheque, draft, 7 0 0, or note), or sent for inspection upon receipt of reference Foreign Orders receive careful attention insured postage abroad, 1/6 extra, sent at our risk

Splendully Illustrated Catalogue of high class Watches, Jewillery and Electro Plate, from 21s to £30, post free to every gentleman mentioning "Madical Annual"

REPAIRS. Repeaters, Chronometers, and Watches of every description carefully adjusted and corrected in our own workshops, by FIRST CLASS workmen, at about ONE THIRD the usual jewellers' fees Jewellery remounted or repaired Silver and Electro Plate renewed Estimates submitted, CLIERTS' wishes are CAREFULLY NOTED and FOLLOWED

### H. WHITE, Watch Manufacturer,

CORNER OF FOUNTAIN STREET (NEXT TO LEWIS'S),

104, MARKET STREET, MANCHESTER.

# Liquors Battley's.

.........

FIRST CLASS AWARD.

FIRST CLASS AWARD.

#### **Pharmaceutical**

#### Preparations.

International Medical Exhibition.

LONDON, 1881.

### **Pharmaceutical** Preparations.

International Medical Exhibition.

NEW ORLEANS. 1885.

### MESSRS.

(Successors to the late RICHARD BATTLEY, and the only Makers of his Liquors) B & W warn the Public against using any Preparations under the above name, unless the Autograph of "Rich. Battley" is on each cork and on the Label attached to each Bottle, without which none is genuine. The above are only prepared at their Laboratory, Cripplegate, London Physicians will oblige by writing "BATTLEY" after the name of the gate, London Physicians will oblige by writing "BATTLEY" after the name of the Liquor on their Prescriptions, as frequent complaints are received of spurious imitations being substituted

Liq. Belladon. Dose, r to 2 min Liq buchu Dose, 10 to 50 min Pattley's Battley's Liq Cinchen Cord Dose, 2 to 15 min

Battley's

Liq Cinchen Pallid. Dose, 2 to 15 mm
B ttley's. Battley's. I ig Conii. Dose, 2 to 6 mm

Liq Colchici Recentis, Dose, 8 to 16 min Battlev's

Liq. Calumbæ Dose, 5 to 15 mm Battley's Liq. Camphoræ Dose, 12 to 24 mm Battley's Liq. Gentianæ Dose, 5 to 15 min Battley's.

Liq. Hyosoyam Dose, 2 to 8 mm Battle Liq Iodi Alb, for external use Battle Liq Upii Sedat Dose, 5 to 15 mm Battle Liq Secalis Cornut Dose, 20 to 60 mm Battley's Battley's. Battiey's.

Battley's.

Liq Tritic Repen Dose, 20 to 60 min
Battley's L q Jaraxaci. Dose, hto r drm Liq Valerianse Dose 8 to 16 min Battlev's.

Battley's. Syr Quatuor Hytrobrom Dose ½ to r drm. Battley's

PRICE LISTS AND SAMPLES ON APPLICATION

#### WATTS.

WHOLESALE DRUGGISTS. CRIPPLEGATE, LONDON.

#### THE

### MEDICAL ANNUAL

AND

PRACTITIONER'S INDEX.

the Medical Profession is

also drawn to

attention of

The

# FOOD An ENTIRE DIET for INFANTS, CHILDREN INVALIDS. **NESTLE'S** DNA

"Renders valuable assistance in Wasting Fever."

Fever."
"Beneficial as a diet in severe cases of Typhoid."

"Invaluable in Cholera Infantum."

Pamphlet containing Extracts from Standard Medical Works in which the above Testimony is given sent free, with Sample Tin, on application to H. NESTLÉ,

SWISS (CONDENSED)

48, Cannon Street, London, E.C.

NSED) MILK

Which, through its RICHNESS in CREAM and UNIFORMITY of QUALITY, has obtained the Largest Sale in Great Britain. It can be used for all purposes of FRESH MILK

Samples to Members of the Medical Profession only sent free on application to H NESTLE, 48, Cannon St. London, E G.

# MEDICAL ANNUAL

AND

#### PRACTITIONER'S INDEX:

A Work of Reference for Medical Practitioners.

#### Editors and Contributors.

PROF GILBERT BARLING, MB, FRCS FANCOURT BARNES, M D. PROF ALF H CARTER, M D, F R C P FREDERICK C COLEY, M D WILLIAM H ELAM, FRCS E HURRY FENWICK, FRCS JOHN FITZGERALD, LDS, RCS,I T COLCOIL FOX, BA, FRCP J DUNDAS GRANT, M D , F R C S ALLAN McLANE HAMILTON, M D ROBERT JONES, FRCS W ARBUTHNOT LANE, FKCS H P LOOMIS, M D GREVILLE MACDONALD, MD, MRCS HECTOR W G MACKENZIE, MA, WILLIAM MILLIGAN, M D

WILLIAM H PEARSE, M D JOS PRIESTLEY, BA, MD, DPH JOHN RIDLON, MA, MD PROF A W MAYO ROBSON, FRCS A D ROCKWELL, M D M ARMAND RUFFER, MA, MD F M SANDWITH, M D PROF ROBT SAUNDBY, M D , F R C P JAMES SHAW, M D G E SHUITLEWORTH, BA, MD W RAMSAY SMITH, M B, B Sc WILLIAM J SMYLY, M D, FRCS, I SIMEON SNELL, FRCS W BLAIR STEWART, AM, MD Prof J MADISON TAYLOR, M D JOHN W TAYLOR, FRCS PROF W GILMAN THOMPSON, M D W B VANDERPOEL, M D ROBT L WATKINS, M D.

#### 1895. THIRTEENTH YEAR

#### Bristol :

WRIGHT & CO., STONE IOHN BRIDGE.

#### Condon :

SIMPKIN, MARSHALL, HAMILTON, KENT & CO, LTD

EDINBURGH YOUNG J PENTLAND, GLASGOW A STENHOUSE, NEW YORK E B TREAF, CALCUITA THACKER, SPINK & CO, PARIS BOYUBAU & CHEVILLET, MELBOURNE, SYDNEY, ADELAIDE AND BRISBANE G ROBERTSON & SYDNEY. ANGUS & ROBERTSON, TORONTO. J. A. CARVETH & CO

G ROBERTSON & Co,

### GOLD MEDALS

Antwerp, Cologne, Amsterdam, Brussels, The Hague, Dublin, Birmingham, &c.

"Honest Water, which ne'er left man i' the mire "
SHAKESPEARE—Timon of Athens, Act I, Sc 2.

# "Johannis"

THE KING OF NATURAL TABLE WATERS.

# Promotes Appetite! Assists Digestion! Prolongs Life!

#### LONDON PRICES-

Bottles, 6/- doz. | Half Bottles, 4,6 doz. | Quarter Bots, 3/6 doz Case of 50, 22/- | Case of 100, 35/- | Case of 100, 25/- | Case. Bottles, and Delivery Fice

"The water mixes well with wines and spirits, the peculiar softness which the *natural* gas lends to the taste rendering it admirably adapted for the purpose"—The Lancet.

"JOHANNIS" secured the Highest Award in the British Section of the Antwerp Exhibition, 1894.

Samples, Price List, Copy of the "Lancet's" Special Analytical Report, &, free on application to

### THE JOHANNIS CO. Ltd.,

25, Regent Street, LONDON, S.W.

SPRINGS: ZOLLHAUS, GERMANY.

"The Silver Spring where England drinks"

SHAKESPEARE—Henry VI, Part II., Act 4 Sc. 1.

# Contributors and Original Contributions to Medical Annual, 1895.

- FANCOURT BARNES, M.D. Senr Phys Chelsea Hospital for Women, Senr Phys British Lying-in Hosp
  Use of the Stem Pessary
- Prof. GILBERT BARLING, MB, FRCS, Surg Gen Hosp and Prof of Surgery, Mason College, Birmingham ABDOMINAL INIURIES WITHOUT EXTERNAL WOUND
- Prof ALFRED H CARTER, M D, F.R C P, Seni Phys Queen's Hosp, Emeritus Prof of Physiology Queen's College, and Prof of Γherapeutics in Mason Coll, Birmingham ANTI-MICROBIC TREAIMENT OF DISEASE
- FREDERIC C COLEY, M D, Phys Newcastle-on-Tyne Hosp for Children Effects of Chlorosis on the Heart
- WM H ELAM, FRCS, Surgeon Cancer Hospital, London CANCER
- E HURRY FENWICK, FRCS, Surg London Hosp and St Peter's Hosp for Urinary Diseases Urinary Surgery
- JOHN FITZGERA'-D, LDS, RCS,I, Dental Surg Nat Hosp Diseases of Heart, Italian Hosp, &c

PYORRHŒA ALVEOLARIS

- T. COLCOTT FOX, B.A, FRCP, Phys Dis of Skin, Westminster Hosp and Paddington Green Hosp, for Children, London Skin Diseases
- J. DUNDAS GRANT, MA, MD., F.RCS, Surg Central Lond Throat and Ear Hosp

Diagnosis of Diseases of Ear Ear Diseases

- ALLAN McLANE HAMILTON, M D, Cons Phys to the New York City Insane Asylum, to the Hosp for Nervous Dis, to the Hosp for the Ruptured and Crippled Neurology
- ROBERT JONES, F.R C S , Ed , Hon Surg Royal Southern Hosp , Liverpool Infantile Paralysis
- W ARBUTHNOT LANE, FRCS, Assist Surg Guy's Hosp and Hosp for Children, Great Ormond St, London

  FRACTURES OF TIBIA AND FIBULA
  SURGICAL TREATMENT OF TUBERCLE

- H. P LOOMIS, M.D., New York, Attending Phys to Belleville Hosp Diltetic Treatment of Philisis
- GREVILLE MACDONALD, MD, Lond, Phys to the Throat Hosp, Golden Square, Throat Phys to King's Coll Hospital, London
  LARYNGEAL STENOSIS—POST NASAL CAIARRH—CHRONIC LARYNGITIS
- HECTOR W G MACKENZIE, MA, MD, FRCP, Assist
  Phys St Thomas's Hosp, and to the Hosp for Consumption,
  Biompton FRIEDREIGH'S DISEASE
- WILLIAM MILLIGAN, M D, Lect on Dis of Ear, Owen's Coll, Manchester, Assist Surg Manchester Ear Institute Pachydlamia Laryngis—Othlic Sinus Phlebilis—Nasal Empyema
- WM H. PEARSE, M D, Ed, Senr Phys Plymouth Public Dispensary, author of "Consumption viewed in relation to Evolution" PRL-PHIHISIS
- JOSEPH PRIESTLEY, BA, MD, DPH, Medical Officer of Health and Public Analyst for Leicester Sanitation
- JOHN RIDLON, MA, M.D, Hon Sec to the American Orthopædic Association, Lect on Orthopædic Surgery Medical Coll, Chicago Surgery of Infantile Paralysis
- Prof A. W. MAYO ROBSON, FROS, Prof Surg Yorkshine College, Victoria University, Surg Leeds Infilmary
  ABDOMINAL SURGERY
- A D ROCKWELL, M D, formerly Prot of Electro-Therapeutics Post Grad Med School, New York City

  ELLCIRO-THERAPLUTICS
- M ARMAND RUFFER, MA, MD, Hon Sec But Institute of Preventive Medicine The DIPHTHERIA ANTHONINES
- F. M SANDWITH, M D., Phys to Kasr-el-Ann Hosp, Cairo Anchylostomiasis in Egyptian Casls
- Prof. ROBERT SAUNDBY, M.D., F.R.C.P., Prof. Medicine Mason College, Phys. Gen. Hosp., Birmingham, Cons. Phys. Birmingham and Midland Eye Hosp. and Hosp. for Women DIE1 IN DISEASES OF THE STOMACH
- JAMES SHAW, M D., late Med Supt and Co-Licensee Haydock Lodge Asylum, Liverpool Acuit Mania—Climacteric Insinity—Paranoia
- G. E SHUTTLEWORTH, B.A., M.D., late Med Supt Royal
  Albert Asylum for Idiots
  New Trealment of Some Menial Defects

- W RAMSAY SMITH, M.B, B Sc, formerly Senr Assist Prof of Nat Hist and Senr Demonst of Zoology, Univ Edin ANGIO-NEUROSIS
- WILLIAM J. SMYLY, M D, F.R C S, I, Master Rotunda Hosp,
  Dublin
  Surgical Treatment of Uterine Myomata
  Prevention of Puerperal Fever
- SIMEON SNELL, F.R CS, Ed, Ophthalmic Surg Gen Infirm and to School for Blind, Lect on Eye Diseases at Medical School, Sheffield Eye-sight and School Life
- W. BLAIR STEWART, A M, M D, Lect on Therapeutics, Late Inst in Pract of Med in Med-Chir Coll, Philadelphia, Demonst in the Phil Sch of Anatomy UREMIA
- Prof J MADISON TAYLOR, AB, MD, Prof of Children's Diseases in Philadelphia Polyclinic, Assist Phys Child Hosp and Orthopædic Hosp, Neurologist at Howard's Hosp
  DISEASES OF CHILDREN
- JOHN W TAYLOR, FRCS, Surg Birmingham and Mid Hosp for Women, and Cons Surg Wolverhampton Hosp for Women Doubling of the Uterus
- Prof W. GILMAN THOMPSON, M.D., Prof of Physiology in the Univ of the City of New York, Phys to New York and Presbyter Hosp

  DYSPEPSIA
- W B VANDERPOEL, M.D., Surg to the Randall's Island Hospitals, New York City ALBUMINURIA
- ROBERT L WATKINS, M.D., Phys to German Dispensary, New York City, late Assist in Gen Med New York Post Grad Medical School

MICROSCOPICAL EXAMINATION OF THE BLOOD IN TUBERCULOSIS

Amportant to the Medical Brokession.

# A SANITARY MILK SUPPLY.

MESSRS WELFORD & SONS desire to call the attention of the Medical Profession to the following important points connected with their Milk Supply conceining which they can afford quite exceptional advantages -

I - They supply absolutely FRESH MILK from their HOME FARMS, sutnate at Hulesden and Willesden, and within the Metropolitan area. This can be conveyed duect to the consumer, and such a supply is of the greatest importance to Invalids and to infants brought up by hand

II—They have elaborated under the guidance of their Medical Officer, a complete system of SUPERVISION and NOTIFICATION of all kinds of illness occurring amongst the milkers and others near or upon any of the Frams from which they

Messis Wellord & Sons pij a fee of ONE GUINEA to any of the Medical Men in the Country who report to them any case of illness occurring amongst the milkers and others on the Fains, or any case of infectious discrete occurring in neigh-

boung villages

III—Each farmer has to send Milk of the highest possible standard only, and farmer has to send by every Tuesday morning, with a signed declaration as to the health of his family, his employes, and the surrounding neighbourhood, and is liable, under conditions of agreement, for the sum of One hundled pounds sterling, for tailure to notify any case of communicable disease

IV —The dangers from posonous exhibitions to which Milk may be exposed, during the process of cooling, are effectually provided against by a periodical examination of the Sanitary condition of the Dany Farms and surroundings by their Medical Officers and

Sanitary Engineer
V—The Sanitary Arrangements of the Home Danies have been most cuefully devised and carried out by their Sanitary Engineer, and the employes are housed in the devised and carried out by their Sanitary Engineer, and the employes are housed in the Company's own model dwellings, and are under strict Medical supervision.

Alderney & Jersey Cows kept expressly for the Nursery and Invalids

GOATS' AND ASSES' MILK.

Special Milk Preparations -

### FACSIMILE HUMAN MILK (HUMANISED). MILK.

Koumiss, Peptonised and Sterilised Milk, &c

### SONS. WELFORD LIMITED.

DAIRY FARMERS,

## Chief Office & Dairy, ELGIN AVENUE, MAIDA VALE, W.

Superintending Medical Officer -SIDNEY MARIIN, Esz, MD, FRCP Inspector of Farms -ED F WILLOUGHBY, Esq M D, Lond, D P H Lond & Cam Medical Officer for Employes -G GWYNNE BIRD, Esq., MRCS

Analyst-A W STOKES FSQ, FIC, FCS

vocterinary Staff-Massas WOODGER, OWEN, VERNEY, & CRAPP, MM R C V S

BRANCH DAIRIES IN ALL PARTS OF LONDON.

Employés Model Dwellings Shirland Road, W

DAIRY FARMS: Harlesden and Willesden, Middlesex.

LABORATORIES: Elgin Avenue, W.

FAMILIES SUPPLIED IN ALL PARTS OF LONDON

Telegrams .- "WELFORDS, LONDON." Telephone 7107.

## CONTENTS.

				PAGE
Preface	-		-	xlv
General Index	•	-		xlıx
List of Illustrations	-		-	lxxm
THERAPEUTIC REVIEW OF THE PAST YEAR		-		- I
DICTIONARY OF NEW REMEDIES	-		-	6
ELECTRO-THERAPEUTICS		-		55
Anti-Microbic Treatment	-		-	65
DICTIONARY OF NEW TREATMENT IN MEDICINE AN	d Sur	GERY		72
Anchylostomiasis	-	-		108
Angio-Neurosis	-		-	117
SURGERY OF THE BLADDER	-	-		138
Cancer	-		-	154
METHODICAL DIAGNOSIS OF EAR DISEASES	•	-		196
Nasal Empyema	-		-	229
EYESIGHT AS INFLUENCED BY SCHOOL LIFE		-		250
Prevention of Puerperal Fever -	-		-	265
Fractures of the Lower Extremities	-	-		275
FRIEDREICH'S DISEASE	_		-	282
New Medical and Surgical Methods in the ?	[reat	MENT	OF	
Mental Defects	-		-	324
Intestinal Surgery		-		337
Infantile Paralysis	-		-	398
DIETETIC TREATMENT OF PHTHISIS -		-		416
DISEASES OF THE PROSTATE	-		-	430
Use of the Stem Pessary		-		454
DIET IN DISEASES OF THE STOMACH -	-		-	455
SURGERY OF THE STOMACH		-		461
Pyorrhœa Alveolaris	•			467

### CONTENTS

	FAGE
SURGICAL TREATMENT OF TUBERCLE	480
STRICTURE OF URETHRA	- 507
Doubling of the Uterus	511
TREATMENT OF DIPHTHERIA BY ANTI-TOVIC SERUM -	525
Sanitary Science	- 531
Editor's Table-New Inventions, Improvements in Pha	R-
MACY, AND DIETETIC ARTICLES	551
LUNATIC AND IDIOT ASYLUMS IN GREAT BRITAIN AND IRELAN	D 584
TRAINING INSTITUTIONS FOR WEAK INTELLECTS -	- 597
Inebriates' Homes	598
Hydropathic Establishments of Great Britain -	- 599
Invalids' Homes	602
Books of the Year. A List of the Principal Medical Wor	K5
AND NEW EDITIONS PUBLISHED DURING 1894 -	- 603
DIRECTORY, OFFICIAL AND TRADE	615
MEDICAL AND SCIENTIFIC SOCIETIES	- Gr7
NURSING INSTITUTIONS AND ASSOCIATIONS	620
MEDICAL AND SCIENTIFIC NEWSPAPERS AND PERIODICALS	- 624
Note Book-for the Insertion of Private Addresses, Li	ST
of Nurses, Books or Instruments Lent, Etc, Etc	- 627
LIFE ASSURANCE OFFICES, LIST OF	637

# CREAM OF MALT WITH COD LIVER OIL,





# **HYPOPHOSPHITES**

(OPPENHEIMER).

Cream of Malt is a carefully prepared exhaust of the finest Scotch winter barley, cream of Malt is a carefully prepared exhaust of the finest Scotch whiter barley, wheat and oats, evaponated in vacuo to pieserve the activity of that valuable digestive principle—diastase. As Cream of Malt is, however, more largely used as a strengthening and resuscitating agent in such wasting diseases as Phthisis, Bronchitis and Rickets, more attention is directed to producing a preparation which in itself shall be essentially a Food Hence Cream of Malt will be found to be exceedingly rich in the phosphates and albuminoid principles of the grain. In Cream of Malt with Cod Liver Oil, and Hypophosphites, the Cod Liver Oil and Hypophosphites are in a perfect state of solution, enabling them to be readily assimilated without digestive disturbance. The value of such a combination is evident, and the superiority of this preparation over the many Malt Estract mixtures of other firms is evidenced by the medical testimony received, which will be forwarded to any medical man upon application

Cream of Malt with Cod Liver Oil, and Hypophosphites (Oppenheimen) is free from all odour and taste of the oil, and is readily taken by children

Samples, Price Lists, Professional and Press Opinions, Free on application

# OPPENHEIMER, SON & CO., Ltd.,



### GOLD MEDAL

INTERNATIONAL CONGRESS MEDICINE. ROME. OF

CASE (one of three) reported in the "MEDICAL ANNUAL." 1803. showing the

### INCREASE OF HÆMOGLOBIN

RESULTING FROM THE ADMINISTRATION OF



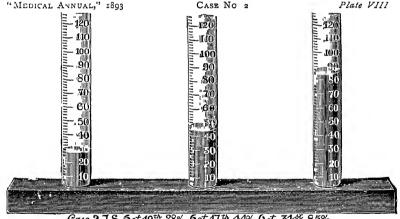


# BI-PALATINOIDS

## OF CARBONATE OF IRON

THREE TIMES DAILY.

Oct 10th, 28 per cent, Oct 17th, 44 per cent, Oct 31st, 85 per cent



Case 2.7 S. Oct, 10th 28%, 6ct, 17th 44%, Oct, 31 st 85%.

Price 2s. 6d. per Gross to the Profession.

OPPENHEIMER, SON & CO., Ltd., 14. Worship St., E.C.

<sup>&</sup>quot;Will, as a matter of course, meet with hearty and general approval "-The Lancet "Well worthy of the attention and the gratitude of the profession"—Indical Annual
"I he acme of pharmaceutical perfection"—Indian Medical Record

<sup>&</sup>quot;A very ingenious and marked progress in elegant and efficient pharmacy"-British Medical

Journal
"If Blaud's pill be the thing, surely this must be prince of all"-Medico-Chirurgical Journal

Every Physician, when using an instrument, requires one which is reliable; such can be found in our



# IMPROYED HYPODERMIC SYRINGE

which possesses the advantages of being sterilisable and not liable to get out of order it is supplied in an Aluminum Case and is equipped with two Platino-Indium Needles and four tubes, assorted, of our Soluble Hypodermics, list of which is afforded below

# Soluble Hypodermies (OPPENHEIMER.)

Immediately and completely soluble in warm or cold water. Non initiant locally, and adapted for onal use. The excipient used in their maintietine is specially chosen with the view to preserving them unchinged by age and in every climate, and to mevent the very general complaint of the likelihood of this form of medication to cative abscess.

THE FOLLOWING WE ARE PRIPARED AT ONCE TO SU	PPIL -	-	-
---	--------	---	---

				D 112 01(0) 4() ((1111	
	Po	r Tube	1		Tube
No		of 20	No	of	20_
100	Aconitine, Pure, 1/120 gr	10d	133	Morphine and Atropine,	10d
101	Apomorphine Muriate, 1 20 gr	10d		Morphine Sulph 1/3 gr	
102	Apomorphine Murate, 1:10 gr	10d	1	Atropine Sulph 1/120 gr.	
103	Apomorphine Muriate, 18 gr.	10d	131		1/6
104	Atropine Sulphate, 1/100 gr	10d	101	Morphine Sulph   q	1/0
105	Atropine Sulphate, 1/60 gr	10d	ĺ	Atronna Culph 1 100	
106		10d		Atropine Sulph 1 100 m	
107	Cocaine Hydrochlorate, 1 10 gr	10d	135		1/3
108	Cocame Hydrochlorate, 16 gr	10a	i	Morphine Sulph 1 m	
109	Cocaine Hydrochlorate, † gr	10d	l	Arropine Sulph (120) ar	
110	Cocaine Hydrochlotate, & gr	1 3	1	Hyoseine Hydrobrom 1/100 gr	
111	Codeine Phosphate,   gr .	10d	136	Nitro Glycerm, 1/200 gr	10a
112	Digitalin, Pure, 1/100 gr	10a	i -		
113	Eserine Sulphate, 1 100 gr	10d	137	Nitro Glycerin, 1/100 gr	10d
114	Hyoscine Hydrobromate, 1,160 g		135	Nitro Glycerin and Strychnine	10d
115	Hyoscyamine Sulphate, 1 50 gi	104	1	Nitro Glycerin 1:100 ar	
118	Mercury Perchloride, 160 gr	10d	ł	Strychnine Sulph 1 30 gr	
119	Morphine Bimeconate, 18 gr	10d	100		0.4
120	Morphine Bimeconate, 16 gr.	104	139	Pilocarpine Muriate, 1 10 gr	26
121	Morphine Bimeconate,   gi	100			33
122	Morphine Bimeconate, 13 gi	100	111	Strychnine Nitrate, 1 100 gr.	10d.
123	Morphine Muriate, 1 gi	100	113	Strychnine Nitrate, 1 60 gi	100
124	Morphine Sulphate, 1,12 gr	104	1143	Strychnine Sulphate, 1 14) gr.	100
125	Morphine Sulphate, 18 gi	100	111		10d
126	Morphine Sulphate, 1 6 gr.	100	11)	Strychnine Sulphate, 1,60 m	10d
127	Morphine Sulphate, 1 gi	iod	116	Strychnine Sulphate, 130 gr	led
128	Morphine Sulphate, 1, 1 gi	10:1	117	Strychnine Sulphate, 1 20 gr	10d
129	Morphine Sulphate, 4 gi	1 3	118	Strychnine and Atropine,	10d
130	Morphine and Atropine,	10d.		Struchnine Sulph 1 50 gr.	
130	Morphine Sulph 1'8 gi	Tuce.	,	Atropine Sulph. 1:150 gr	
	Atropine Sulph 1:200 gr.		1 1 111		***
131	Morphine and Atropine.	100	7.5.1	Strychnine and Atropine,	10a
131		100		Strucknine Sulph 1 30 gr.	
	Morphine Sulph 1/6 at		ţ	Atropine Sulph 1/120 gr.	
120	Atropine Sulph 1/180 gr.	10d.	150	Struchnine and Atropine.	10d.
132	Morphine and Atropine,	TOU.		Strychnine Sulph, 160 gr.	
	Morphine Sulph 4 gr			Atropine Sulph. 1/150 gr.	
	Atropine Sulph. 1/150 gr.				

# OPPENHEIMER, SON & CO., Ltd., 14, Worship St., E.C.

### PREFACE.

In introducing the present volume to our readers and reviewers we feel that we are addressing friends who have for thirteen years encouraged our efforts to make the "Medical Annual" worthy of the confidence and approval of the Medical Profession, and who have always shown a generous consideration for the difficulties of the task we have undertaken

The support afforded us by Physicians and Surgeons in all parts of the world has greatly lightened our labours, and our chief trouble during the last few years has been to keep the work within such reasonable limits as to render it a handy work of reference without sacrificing its completeness. This has necessitated some increase in the work undertaken by the editorial staff, but has not required any alteration in the arrangements or general plan of the book

We prefer, as far as possible, to bring those who are advancing the science of medicine in any direction into direct communication with our readers, and we are not, therefore, governed by any consideration of nationality or school in selecting our contributors

It is with particular pleasure that we see members of our profession, widely separated by land and sea, working together with the common object of helping the practitioner in his daily work, and we feel that our readers will join us in welcoming them, and support us in the view that breadth and impartiality are essential to the character of the "Annual" as a scientific work, and due to those who look to it for information

We may again remind our readers that in the case of the more important and practical communications addressed to the Medical Press during the year we are always glad to receive, direct from their authors, a short statement of the views advanced, to be inserted under the writer's name, or we are ready to submit to them an abstract, made by our editorial staff, for their correction. It not infrequently happens that an author has occasion to modify a statement or add a confirmatory fact after the publication of his original article, and it is important both to author and readers that no effort should be spared to avoid placing, in a work of permanent reference, a statement which may stand in need of correction.

The treatment of Diphthena by Anti-toxin is without doubt the most important advance made in medical science during the year, and the most recent reports show that it is likely to prove a discovery of the first importance. The desire of Dr. Armand Ruffer to afford us the latest information respecting his investigations on the subject, rendered it impossible to insert his article in its proper place in the volume, and it will therefore be found on p. 525.

It is with deep regret that we mention the omission of the article on "Endocarditis in Children," which was promised by the late Di Octavius Sturges. We had looked forward to his valued co-operation both in the present and future volumes of the "Annual," but soon after the promise was made the profession had to mourn the loss of one of its most talented members.

The "Medical Annual" Offices,
Bristol, England, January, 1895



Extract of



Beef

Makes the PUREST and

BEST

BEEF

PHITTCT PURITY
ALSOLUTELY GUARANTERD

See SIGNATURE (as annexed)
in BLUE INK across
the Label on each
Jar of the Genuine
Extract.

Highest Awards at all the Principal Exhibitions since 1867, and declared Above Competition since 1885.

BEWARE OF IMITATIONS.

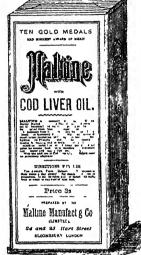
THE COMPANY'S NEW COOKERY BOOK sent free on application to—

LIEBIG'S EXTRACT OF MEAT COMPANY, Ltd.

9, Fenchurch Avenue, LONDON, E.C.

# MALITINE

## WITH COD LIVER OIL.



THE BEST FORM OF COD LIVER OIL.

"MALTINE" with Cod Liver Oil is

## PALATABLE, DIGESTIBLE,

and far more

## NOURISHING

than any other preparation of Cod Liver Oil

"Patients unable to tolerate the purest and most carefully prepared Cod Liver Oil can readily digest and assimilate it when combined with 'Maltine'—British Medical Journal

"An elegant and palatable preparation"

Medical Press and Circular

In this combination the two great objections to Cod Liver Oil are successfully overcome

The Oil is rendered thoroughly digestible by intimate incorporation with a digestive food like "MALTINE."

The odour and taste of the Oil are perfectly masked by the delicate flavour of the "MALTINE."

The bone- and tissue-forming principles of the wheat and oats, the heat-giving properties of the carbo-hydrates of the malted barley, and the fat-forming powers of Cod Laver Oil, make this combination an unrivalled food for building up the system.

It is especially liked by children, and generally those who cannot tolerate any other preparation of Cod Liver Oil, take Maltine and Cod Liver Oil with positive pleasure.

WHEN ORDERING PLEASE SPECIFY

THE MALTINE MANUFACTURING CO., Limited, 24 & 25, HART-ST., BLOOMSBURY, LONDON.

## General Index.

	PAGE		PAGE
A BDOMINAL Ausculation Hysterectomy	8r	Albuminuria, Glycero-Phosphates for	30
— Hysterectomy — Injuries, without External Wound — Section, Fistulæ following	0. 376	- Organic	90
- Inuries, without External Wound	72	Circulatory Changes in	91
- Section, Fistulæ following	79	— — Hæmic Changes in	90
— Surgery	78	— — Intrinsic Changes in	
— Tumours	81	— Vasculai Changes in	91
Abortion	82	Orghana	91
	82	— Oxaluric	95
- Curettement in		- Predisposing Causes	93 96
- Irrigation for	83	— Prognosis	96
— Morphine in	83	— Pulse Rate	95
Oxytocics in cases of	82	- Simple	94
- Saline Injections for	83	- Synopsis	97
- Synopsis	83	- the Neurotic Type	95
- Tampon in cases of	82	with Anchylostomiasis	112
<ul> <li>Use of Ergot internally</li> </ul>	82, 83	Alcohol and Cinchona Bank in Yellov	w
Abscess	83	Fever	524
- Hepatic	362	— ın Anthrax	128
- in External Meatus	217	— — Hyperidiosis	320
— of the Spleen	453	Alcoholic Delirium, Valerianate of	
— Subphienic	462	Amyl in	
Acetic Acid in Pachydermia Laiyngis		- Stimulation in Bronchitis	54
Acne Rosacea	393 84	Alcoholism	149
— Vulgaris	84	- Calomel Purge in	97
- Vulgaris			98
- Creasote Plaster for	87	- Capsicum Tincture in	98
— — Ichthyol Soap for	87	— Digitalis in	98
— — Linimentum Saponis for	87	- Hot Bath Useful for	98
— — Lotions for	86	— — Wiesbaden Kochbrunnen Wate	er
Medicated Sonps for	85	for	97
Mercury Ointment for	87	- Strychnine in	98
- Ointments for	86	— Synopsis	100
- Preventive Treatment	85	— Trional for	98
Resorcin Sublimate Paste for	87	- Valerian in	98
<ul> <li>— Superfatted Soaps for</li> </ul>	86	Alkalies for Galactophoritis	148
Synopsis	87	- in Urticalia	509
Synopsis     Unna's Salicylic Plaster for	87	Alom in Paranoia	337
Actinomycosis	88	Alopecia Areata	100
- of Animals, Potassium Iodide in	88	Chrysaiobin for	100
- Iodine Therapy in Veterinary Pract	ıce 88	- Hot Spray for	100
- Synopsis	88	Kneading Scalp for	100
Acute Catarrh of Middle Ear	203	Massage for	100
- Mania	331	Sulphur Water Baths for	100
— — Cannabis Indica in	333	Synopsis	101
— — Cascara Tabloids in		Alterative, Croton Oil as	18
— — Chloral Hydrate in	333	Amenorrhœa .	
Chioral Trydrate in	333		101
— — Hyoscine in — — Hyoscyamine in	332	— Electricity in	102
- Hyoscyamine in	332	— Lappa Officinalis in	33
— — Iron in	333	- Ovalic Acid for	101
— — Pilocarpine in	333	— Synopsis	102
Quinine and Iron in	333	Ammoniated Mercury in Impetigo	330
Adenoids and Mental Defects	330	Ammonio-Citrate of Iron in Anaemia	104
Adonidin in Heart Disease	312	Ammonium Bromide in Climacteric In-	
Aero Cystoscopy	145	sanity	334
Air Passages, Antisepsis of	70	— — in Paranoia	336
Albuminuria	88	Chloride in Cystitis	183
- Croton Oil in	19	in Post nasal Catarrh	167
- Etiology	93	<ul> <li>Tetra-Ethyl of</li> </ul>	6
- Exciting Causes	93	Amygdalitis (Membranous), the Nu-	
- Functional	94	cleins in	38
			_
		D	

	PAGL		\GE
Amyl Nitrite in Angina	116	Anginal Neurotic Œdema	383
- — in Ophthalmic Therapeutics	261	— — Arsenic in	<sub>5</sub> 85
Uræmia	497	Bromide of Iron in	385
- Valerranate	53	Ergot in	385
Anamia and Chlorosis	102	Anodynes, Phulluan	42
Ammonio-citrate of Iron in	104	Inorexia, Synopsis	126
Arsenite of Copper in	103	Anthrax	126
- Beef Juice in	103	- Alcohol m	128
<ul> <li>Carbonate of Iron in</li> </ul>	103	- Carbolic Acid in 120,	127
- Ferrous Sulphide in	103	— Ipecacu inha in	127
— Hamogallol in	103	- Mercurial Ointment in	128
— Hydronaphthol in	103	- Morphine in	127
- Iron in	103	- Phenate of Quinine in	120
- Silol in	103	— Phenate of Quinine in Anti-Microbic Treatment of Disease	65
— Permeiosa	104	- Parasiticides for Timea Trichophy	
— — Arsenic in	104	tina	478
— — Bismuth Subnitrate in	104	Antinervine	572
— — Hydrochloric Acid in	204	Antipyretic, Asaprol as	. 8
— — Iron in — — Lavage in	105	Antipyrin for Headache	303
Lavage in	105	— in Cholera	174
Massage m	105	— — Cystitis 138,	183
— — Salme Solution in	105	Dermatitis	184
— — Synopsis	105	— — Enuresis	241
Anæsthesia	100	— — Ophthalmic Therapeutics	261
Atropine and Cocaine for	106	Pruritus	435
- Ether for	106	Antisepsis of Air Passages	70
- Synopsis	103	- of Mouth and Throat	67
- Usual for Operation for Stone	143	— — Serous Cavities	69
Anasthetic, Ethyl Bromide as	26	Antiseptic Perles	572
Anæsthetics, Pental	40	- Powders	7
Analgesic Injections for Bludder	138	- Solutions, hot for Tine (Trichophy-	
Analgesics, the Faradaic Current	56	tina	478
Anchylostomiasis	108	Antiseptics, Cinnamon Oil	17
— Castor Oil in	114	- Di-lodoform	21
<ul> <li>Complications of</li> </ul>	112	— in Erysipelas	248
- Hydrarg-Peichlor in	114	- Naphtholate of Sodium	37
- Iron in	114	- Phulluah	42
- Sulph ite of Magnesia in	111	Anti-toxic Serum in Diphtheria	525
- Thymol in	113	Antial Empyema	232
Anestile	572	Anuria, obstructive	506
Anenrism	115	Anus	128
Angina Pectoris	115	- Cautery for Ulceration of	x 28
— Belladonna in	116	- Chloral in Ulceration of	178
— Diet in	116	- Iodoform Ointment in Ulceration of	128
— Faradization for	116	- Nitrate of Silver for Ukeration of	128
<ul> <li>Hot Applications to Chest</li> </ul>	116	- Opium Suppositories in Ulceration	_
- Iodine of Potash in	116	of	128
— Morphia in	116	- Subnitrate of Bismuth for Ulcera-	_
- Nitiate of Amyl in	116	tion of	128
Nitro-glycerine in	116	Aortic Insufficiency, Carpaine in	16
- Opium in	116	Aperients in Cancer of Stomach	460
Rest for	116	- Use of, in Appendicitis	x 33
- Sodium Salicylate in	116	Apocodeine	7
- Stimulants for	116	Apocynum Cannabinum in Heart	
- Synopsis	116	Disease .	312
- Valerianate of Amylin	54	Apoplexy, Croton Oil in .	19
Anginal Affections, Sodium Nitrite		Appendicitis	129
- Neurosis	117	- Apericuts in	133
Arsenic in	125	Obliterans	132
— — Calomel in	126	Appendicular Colic .	134
Climatic Conditions	124	Appliances, Surgical	553
- Emotion, a Factor in	122	Anstol in Lupus Vulgaris Army Medical Department	370
Isrgot in	126	Army Medical Department	616
— — Quinine in	125	Arsenic for Cancer	165
Salol in	126	- 'n Anæmia Perniciosa	104
— — Strychnine in	125	— Angio-neurosis	125
— Synopsis — Toxis, a Factor in .	126	— — Neurotic Œdema	385
m	. 123	— Cardiac Asthenia — Cerebral Tumours	312
1 reatment for	. 125	- Cerebral Lumours	488

	PAGE		PAGE
Arsenic for Climacteric Insanity	334	Bath for Infantile Convulsions	178
- m Chorea	174	Bea Pan, Improved	557
- Dei matitis	184	Beef Broth	579
Eczema	224	— Jelly	579
— Friedreich's Disease	288	Beef Juice in Anæmia	103
— — Galactophoritis Asafœtida in Delirium Tremens	148	Belladonna — for Mucous Patches of Mouth	11
Asaprol Asaprol	99	— in Angina	116
— as an Antiypretic	8	- Croup	182
- in Chronic Nephritis	8	— — Dysmenoirhœa	11
— — Rheumatism	8. 0	— — Łczema	224
— — Sciatica	8, 9	— — Lczema — — Enuresis	241
Ascites, New Sign of	<b>1</b> 35	— — Leucoplakıa — — Mercurial Stomatitis	11
Asclepias Tuberosa	9	Mercurial Stomatitis	11
— — in Exanthematous Fever	9	Mouth Affections	II
- for Rheumatism	9	Obstruction of Bowels	12
- m Pleurisy and Pneumonia	9	Paintul Defæcation	12
Aseptic Jars	550	- Painful Defaction - Renal Colic - Syphiltic Ulcerations of Mouth	II
Asthenia, Cardiac	308	Outpoint to Lumbletic	. II
Asthma	135	Ointment in Typhlitis     Tincture in Urtic iria	489 509
Atropine in     Grindelia Robusta in		Belt for Umbilical Heima	558
- Nicotine in	30 136	Benzine in Tinea Versicolor	479
- Nitro-glycerine in	136	Benzoate of Sodium in Yellow Fever	524
- Ovygen in	39	Benzol-Naphthol in Typhlitis	489
Synopsis	137	Beri-beri .	137
Astringent Douches in Senile Endome	-	Synopsis	138
tritis	238	Bichromate of Potash	43
Asylums ,	584	Biei's Method in Lipus Vulgaris  — Operation for Prostatic Hyper-	369
Atavism and Phthisis	425	- Operation for Prostatic Hyper-	
Attaxy	365	trophy Remedy in Tuberculosis	433 487
Atheroma, Synopsis Atrophy, Muscular	137	Bile Duct, Papilloma of	299
— of Pancreas	137 397	- Rupture of	299
Atropia in Locomotor Atania	366	Biscuits, Oat Flour	582
Atropine and Cocaine for Anæsthesia	106	Bismuth and Calumba in Climacteria	;
— in Asihma	r36	Insanity	334
— — Heart Disease	312	— and Cocaine in Anæmia Perinciosa	104
Sulphate in Urticaria     Aural Catarrh, Sulphanilic Acid in	509	— — Soda in Diarrhœa	185 458
Aural Catarrh, Sulphanilic Acid in	51	- in Catarrh of Stomach	458
— Specula, new	220	Intentis	240
- Veitigo	221	- Salicylate Tabloids	572
— — Bromide of Lithium in	221	- Subgallate in Dyspepsin	194
— — Calomel in — — Colchicum in	222	— Submitrate as an Intestinal Anti- septic	- 69
— — Mercury in	222	- as Gastric Antiseptic	68
- Pilocarpine in	222	in Ulceration of Anus	128
Mercury in     Pilocarpine in     Potassium Bromide in	221	Bitartrate of Potassium in Yellow Fever	
— — Quinine in	222	Black Wash for Pruritus Vulva.	438
Salicylate of Sodium in 2:	21, 222	Bladder Disease, Synopsis	146
— — Synopsis	222	- Ichthyol as an Injection	138
Auricle, Abnormality of Aurum Metallicum	214	- Injections for	138
Aurum Metallicum	, 9	- Power of Absorption by	138
— for Neurotic Disease of the Age — Sclerosis	d IC	- Rupture of	9, 139
in Curhosis of the Lungs	9	— Stone in	141 138
Consumption	10	- Surgery of - l'uberculosis of	140
— — Consumption — — Luberculosis	10	- Tumours	141
Auscultation, Abdominal	8r	- Vesical Atony of	133
Axial Rotation of the Spleen	452	Bleeding from Rectum stayed by Cal	- ~
Axis Tractor	556	cium Chloride	15
		Blisters for Metritis	373 178
BARLING G, \$ 72, Barnes F Banana Flour in Dyspepsia	454	- in Infantile Convulsions	178
	195	Blood Serum	12
Bandage Shoot	556	Blue Pill for Catarrh of Stomach	458
Barium Chloride in Heart Disease Bath for Urticaria	312	Boils, Synopsis  Bone Cutting Forcess	1 47 56
- Warm, in Lyphlitis	509 . 488	Bone Cutting Forceps  — Plug for Pruritus Ani	425
- in Constipation of Children	177	Books of the Year	438 60

1	\GE	PAC	GTE.
Borax in Enteritis	240	Calcium Chloride in Purpura Hamor-	
Bone Acid to Cricked Number	118	th igic i	15
- for Promitus Vulva - Vinoli	150	- Sulphide in Petichondettis 3	50
\ moli	517	Calculous Affections, I iwsoma Inci-	
- m I nteritis	210	Into in	34
I eprosy Solution in Bowel Obstruction of	359		41
Children	178		42
Boro-glycerine in Hyperidrosis	31	Cidomel and Scammony in Constitution	4-
Bowel Obstruction, Bell donn's for	12		77
in Children, Bone Acid Solution		— for Croup 181, 1	ε,
for	178		oS
- of Children, Castor Oil in	178		20
Glycome for	178	- Aural Vertigo	202
Braces, Chest Expanding	5 18		7
Br un Galvanization Br undy for Nausea of Uzzmia	63 497		19
Breast. Diseases of	147		23
Breast, Diseases of Bright's Disease, Synopsis		- Purge in Alcoholism	့် မွ
Broinclin		Calumba in China end Instity 3	3 ,4
Bromide of Ammonia in Parimora	351	Camphor in Delirania Liencus	99
Ammonium in Climicteric In		in Pruntus 4	::5
Sanits	534		10
- Iron in Angio-neurotic (I'dena)		' - m Fjathelioma	16
— Potassium in Enuicesis	241		10
— — — Infantile Convulsions — — Strontium in Enteritis			54 165
Bromides in Pruntus .	230 435		t) 1
- for Pruritus Vulva	417		цÓ;
Bromoethylformine in Epilepsy	244		tti
Bronchice tasis, Synopsis	Titl	- P trology of . 1	155
Bronchi-fume .	57 1		r' 5
Bronchitis	11)		54
- Alcoholic Stimulation for	14 /		154)
- Chloril in - Col Oil and Creisote in	150		(1)4
- Fthyl Iodide for	150		rt 4 164
- Encalyptol in	251		1174
- Hot Drinks for	141)		11,
- Infectious, Comphorated Guaracol in		1 55 napsts 2	11:6
Ether in	151	- Treatment	ιбэ
- Month Washings for	171	- of Stomuch, Chlorate of Sodium in	48
- Kermes Mineral for	150		400
- Morphine in	150	Saline Aperients in	<b>460</b>
- Oxygen in - Synopsis	33		261
- Syrup of Polu in	151	- m Acute Acute	3133 333
- Tincture of Iodine for	150		3 3rl
- with Anchylostom isis .	113		435
Bronchorrhaa .	15,	Cunthardate of Potash in I upus Vul	, ,,,
Bubo	132	guis	369
- Iodoform for	152	Cushum in Deminin Tremens	99
- Nitrate of Silver for	153	- In ct ue in Alcoholism	98
Synopsis Bur, the, in Mastoid Opei itions	153	Carbolic Acid for Gastric Artisepsis	68
Burns .	12}	- — for Intestmal Antiscip is — Molloscum Contagnosum	
- Diaphtherm for	21	m Anth ex . 120, 1	374
		Intend Fever 201.	
CARTER ALFRED H, \$ 65, C	oley,	lerysipelis	249
CARTER ALFRED H, A 65, C	_	Lupus Vulgaris	369
Caddies, (Ferris) for Dressings	558	Pittitus	435
Calicine in Heart Disease	112		168
Calcie Inflammation of Gums 469	474		179
Chlorade of Zinc for Perovale of Hydrogen in	475 475		274 321
Calcium in Enteritis .	239	Carbolized Poultices in Guinca Worm	741
- Chloride .	15	Disease .	275
in Bleeding from Rectum	25	- low	560
Hæmaturia	×5	Carbuncle, Synopsis .	166

	PAGE		PAGE
Carbuncles, Spraying for	168	Chloral and Musl for Infantile Con	
Cardiac Affections, Digitovin in	21	vulsions	178 182
Asthenia	303	— for Croup — in Bronchitis	150
— — Massage in	312 31	- Delinum of Uræmia	497
— Arsenic in — Massage in — Shower Baths in	311	Pruntus	435
— — Strychnine in	311	- Ulceration of Anus	128
— Strychnine in — Swedish Movements in	311	— Ulceration of Anus — Uræmia	496
— Failure, Oxygen in	39	- Hydrate in Acute Mania	333
— Failure, Oxygen in — Irregularity, Sodium Nitrite in — Sumulant, Sparteine	49	in Croup Delirium Tremens	182
- Sumulant, Sparteine	50	——— Delirium Tremens	99
- Ionics, Primus Virginiana	45	Chlorate of Potash in Cancer Chloride of Ammonium in Cystitis	164 183
Carminatives in Diarrhœa Carpaine	165	———— in Post Nasal Catarih	163
— in Aortic Insufficiency	16	Sodium in Pneumonia	428
— — Dyspnœa	16	Zinc in Chionic Laryngitis	
Stenosis     to Promote Excietion of Urine	16	— — Solution in Endometritis	353 238
— to Promote Excietion of Urine	16	Chlorine Gas for Ulcus Cruis	494
Caruncle of Urethra	507	Chloroform in Enteric Fever	254
Cascara and Assfeetida in Constiputio		— in Infantile Convulsions .	178
of Children	<b>17</b> 7	— — Pi mitus — Inhalation	435 106
in Acute Mania     Sagiada in Constipation of Chil	333	— Inhaler	560
dren dren	177	- Naicosis, Effect on Kidney	348
- Tab'oids in Climacteric Insanity	334	Chlorosis	169
Castor in Yellow Fever	524	- Frontal Headache in	171
- Oil in Anchylostomiasis	114	- Intercestal Neuralaia in	171
- m Bowel Obstruction of Chil		- Iron Hypodermic thy in	104
dren	178	- Lappa Officinalis in .	33
Enteritis	239	— Oxygen in	_39
ryperialosis	321	— Spinal Curvature in — Synopsis	171
Castration for Prostatic Hypertrophy Catarrh of Eustachian Tube	43 <b>1</b> 198	- Ulcer of Stomach in	171
- of Middle For	198	Cholecystectomy	294
- Stomach, Bismuth for - Blue Pill for - Liebig's Extract in - Saline Aperient in	453	Cholecystenterostomy	294
Blue Pill for	4 78	Choleci stitis, Gangrenous	296
— — Liebig's Extract in	450	Choledochotomy	294
Saline Aperient in	458	Cholelithiasis	293
- Post-Nasai	100	Cholem	294
— — Ammonium Chloride in Cathartic, Croton Oil as	167	Cholera . — Naja Tripudians in	173
Catheterization of Ureter 4	9, 500	- Precautions	36 546
Caustic Potash in Eczema	225	- Saline Injections in	173
Caustics in Gonorrhæal Endometrius	<b>∡</b> 38	- Synopsis	173
- in Lupus Vulgaris	368	- Ireated by Copper - Infantum, Synopsis	173
Cauterant, Trichloracetic Acid as	52	Infantum, Synopsis	174
Cautery, Actual in Typhlitis	489	Choleraic Diaitheet, Salicetol in	46
— in lorticollis	480 128	Cholesteatoma  — Removal of	208
Ulceration of Anus Celery Compound, Glycerole of		Chorea	219 174
Cerebos Salt	573 570	— Antipytin in	174
Cerebos Salt Cerebral Tumour	579 488	- Arsenic in	174
— — Arsenic in	488	- Synopsis	175
— — Cod-liver Oil in	488	Chromic Acid in Epistaxis  — in Hyperidiosis	245
- Iodide of Potash in	488	— in Hyperidiosis	321
Cerebrine	16	— — Lupus Vulgaris — — Molluscum Contagiosum	369
Certification of Deaths	549	Chronic Laryngitis	374
Cerumen Impacted in Ear Champagne-sans-Sucie	197 580	— in Young Men	352
Chancre Chance	167	- Nephritis, Asaprol in	35 <u>3</u>
— Dermatol for	τ68	Chrysaiobin for Alopecia Aienta	100
— Di-Iodoform for	168	- In horama	225
<ul> <li>Peroxide of Hydrogen for</li> <li>Treated by Heat</li> </ul>	8c1	- Leprosy - Psoriasis - Tinea Trichophytina - Versicolor	360
- Treated by Heat	167	- Psoriasis	439
Chancres, Lawsonia Incimis in	34 168	— — I mea I richophytina	477
- Synopsis		Cinchonæ Hydiobiom Liq	479 576
Charcoal as an Intestinal Antiseptic	69 176	Cinnamic Acid Emulsion in Lupus	5/0
Children, Constipation in Chloasma, Uterine, Synopsis	169	Vulgaris	379

1	P 161		PAGL
Cinnamon in Cancer	163	Convulsions, Synopsis	179
- Oil .	17	- Infantile, Baths in	178
- as an Antis ptic	17	— — Blisters in	170
Circul itory Changes in Organic Albu-		<ul> <li>Brounds of Po assum for</li> </ul>	178
minuita	CI	Chioral and Musk for	178
Circumcision	175	Chloroform in	178
Curhosis of Liver Synopsis	301	— — Constipation a C use of	178
Lungs, Aurum Met cheum in	10	- Counter-Irritation for	179
Citrate of Magnesium in Constipution		Ether for .	178
o Children	1-7	I cuches for	179
Climicteric Insanity	332	Massage in	170
Bismuth and Calumba in	334	Mustard Baths for	178
— — Bromide of Ammonium in — C iscara Tabloids in	334	- Venesection for	179
Ciscara Tabloids in	334	— of Children	178
— — Cod liver Oil in	331	- Puerperal, Synopsis	179
<ul> <li>Fellow's Syrup and Arsenic in</li> </ul>	3-1	Copper in Cholera	173
- Grey Powder in	334	- Aiscuite in An emi i	1 23
Iron and Quimme in	334	- Sulph ite in Gingivitis	473
Rheubarb and Gentran in	3 34	Cor osive Sublimate for Variol i	517
— — Salix Nigi i in	354	— — m Frysipelas	248
— — Sulphonal in	324	— — — Molluscum Contagiosum	37 £
Climate, Change of in Eczema	225	Cortex Cerebii, Extract of .	571
Climate, Change of in Eczema Climatic Conditions in Angio Neurosis	124	Coryza	179
Coca in Collapse of Uraemia	447	— Cubolic Lotion for	179
- in Delirium Fremens	97	Fucily prus for	1,0
- Butter in Constipution of Infants	170	— Lemon Inh dation for	rto
Wme	581	<ul> <li>Sulphanthe Acid in</li> </ul>	51
Cocame .	17	- Synopsis	3 So
- for Praritus Vulvæ .	438	Cotton-Wool Underclothing	58 <i>3</i>
Sciatica	445	Counter-Irritation in Infantile	Con-
- in Epistaxis	247	vulsions	. 179
Heart Disease	312	- in Spesmodic Torticollis	• 480
— — Pruntus	435	Cracked Nipples .	148
- and Atropine for Anasthesia	rce	— — Solution for	148
- Analgesia	107	Crimectomy in Microcephilus	347
- Lactate in Cystitis	183	Cieasote	573
- Pipette	56x	- for G estric Antisepsis	68
Cod liver Oil in Bronchitis	153	- in Bronchitis	150, 151
m Cerebril Tumours	488	— — Dyspepsia	195
Chimacteric Insanity	334	Leprosy	360
— — — Eczema	224	- Tinca Trichophytina	478
— — Phthisis	410	Cretmism, Sporadic, Thyroid T	ie it
Sciatica	445	ment in	324
— Oil in Friedriech's Disease	388	- Synopsis	180
Coffee, Malted	58 t	Croton Oil	18
Colchicum in Aural Vertigo	12 I	as a Cathartic and Alterativ	e 18
Colu, Appendicular	134	· Stimulant	. 18
- Renal, Belladonna in .	11	- in Albuminuria	39
Compression of Breast for Galactopho-	373	Apoplexy	19
Compression of Breast for Galactopho-	_	Chrona Rheumatism	. 19
ritis	1 <u>4</u> 8	Constipation .	18
Consum in Spasmodic Torticollis	480	Diopsy .	rg
Constipation a Cause of Intintik Con-		lead Colic .	19
vulsions	178	Neuralgia .	. rg
— Croton Oil in	x8	Scratica	x9
— Senna in	48	Tu Douloureux Typhlitis	. IG
- in Children	176	Typhlitis	488
Cascara and Asafœtida for .	178	Croup	18c
- of Children, Synopsis .	178	- Belladonna in	182
Baths in	177	- Bicarbonate of Soda for .	182
Cilomel and Scammony in	377	— Calomel for	181, 8
(ascara Sagrada m .	177	— Chloral for	182
Citrate of Magnesium in	177	- Hydrate in	182
Electricity in .	777	- Hot Spray in	132
Fxercise in	x77	- Intubation for	182
Massage for	177	- Lime Water for	182
Podophylim in	×77	- Paregoric for	181
Consumption Fibroid, Aurum Metalii-		- Peroxide of Hydrogen for	182
cum m	10	— Quinine in	182

	р	AGE	1	PAGE
Croup, Spasmodic, Synopsis	-	182	Diaithœa, Lawsonia Inermis in	
- Starch Injection for		181	- Massage in	189
- Tracheotomy in		182	- Salacetol for	187
- Turpeth Mineral in		182	- Synopsis	188
Cupri Sulphas in Syphilis		20	Dictionary of New Remedies  — Treatment	1
Curette for Gonorrhoeal Endometritis	5	238	I reatment	72
- in Mastoid Operations		219	Diet in Angina Pectoris	116
Curettement in Abortion		82	- in Diseases of the Stomach	455
Curettes Curvature of Spine in Chlorosis		561	- Ecrema	224
Cyanide of Potassium in Pruritus		171	Table for Diairhœa	185
	ın	435	Dietetic Articles  — Treatment of Phthisis	579
Goitie Macrostylulibrige	111	20	Digitalis in Alcoholism	416
Cyst of Pancreas			- in Heart Disease	98
— — Stomach		395 466	- Pneumonia	312 427
Cystic Degeneration of Liver .		361	— Uræmia	495
Cystitis		183	Digitovin	21
— Antipyrin for	138,	183	- for Pneumonia	21
Chloride of Ammonium in		183	— in Cardiac Affections	21
— Elaterium in		24	— — Lyphoid	21
- Lactate of Cocame for		183	D1-10dofoi m	21
— Thuja Occidentalis in	52,	184	— as an Antiseptic	21
- and Prostatectomy		430	- for Chancres	168
	41,	145	- Cicatizing Action of	21
T EARNESS bustones!			Dilatation of Stomach, Diet in	459
DEAFNESS, hysterical .		199	Diphtheria	189
— Obstructive		199	- Antitoxic Serum Treatment for	525
- Without pain		197	Antitoxine Treatment for     Biniodide of Meicury in	547
Defæcation painful, Belladonna for		197	- Increase of	189 546
Defective hearing, without pain		197	- Papayotin and Carbolic Acid in	189
Degeneration of Liver, cystic		362	- the Nucleins in	38
Degeneration of Liver, cystic Delirium of Alcohol, Valerianate	of	J	- Thymol in	189
Amyl in		54	- Synopsis	100
- Tremens, Asafœtida in		99	Discharge from the Ear .	205
— — Camphor in		99	Disinfectants, New Disinfecting Machine Displaced Liver, Fixing a	54I
Capsicum in		99	Disinfecting Machine	543
- Chloral Hydrate in		99	Displaced Liver, Fixing a	365
— Coca in		99	Distraction in Hip Disease	387
- Hot Air Baths in - Strychnine in		99	Djamboe	22
Denolarizana Electrode		99 58	- in Diairhoea of Phthisis	22
Depolarizing Electrode Dermatitis Herpetiformis	•	184	— Dyspepsia — Gastro-Enteritis	194 22
— Antipyin in		184	Douche, Portable	561
- Arsenic for		184	Douches in Lichen Planus	360
- Pilocaipine in		184	Doyen's Method of Hysterectomy	375
<ul> <li>Salicylic Ointment for</li> </ul>		184	Drain Gullies	539
- Tar Baths in		184	- Interceptor Traps	535
— Vaseline for		184	- Pipes and Connections	537
Dermatol for Chancre		168	Dressings, etc	553
Desks in Schools		255	Dropsy, Croton Oil in	19
Diabetes, Synopsis Diabetic Foods		184	Dry Cups in Sciatica	445
Diagnosis in Enteric Fever .		58r	- Inhalations for Antisepsis of Air	
— of Diseases of Ear		263	Passages Duboisme	70
— Tuberculosis by Third Blog	ď	196	— in Dyspepsia	23 195
Corpuscle		484	- Sulphate in Epilepsy	244
	21,		Dulcin	23
- for Ulcers .		21	Duodenal Ulcers	340
— in Burns		21	Duration of operation for Stone	143
Diarrhœa		r85	Dysentery	190
- after Food, Liq Arsenicalis for		185	- Empirical Treatment in Constanti-	
- Bismuth and Soda in .		165	nople	190
- Calomel for		187	- Laudanum and Starch for	191
— Carminatives in		185	- Lysol Enemata for	191
- Choleraic, Salacetol in		46	- Synopsis	191
- Diet Table for - Guava Plant for		185	with Anchylostomiasis Dysmenorrheea	112
— Infantile .		188	— Belladerma in	191
- Interrute .			Donate III	* 1

	177	AGE		P.	AGE.
Dysmenorihœa, Santonin in		192	Eczema, Vulcanized Diessing in		226
C			- Wilson's Salve for .	•	223
— Synopsis	••	192	Editor's Lable		
- Vioumum Framionam m		192			551
Dyspepsia		193	Effleurage for Prurigo		434
— Banana Flour in		195	Elastic Bandage, Porous .		562
- Bismuth Subgallate in		194	Elaterium .		24
- Creasote in		195	- in Cystitis .		24
			Electric Souffle in Eczemi		226
— Dyamboe in		194			
— Dubosin in		195	Electrical Reaction in Nervous Di	.se.15e	377
- Guatacol in		195	<ul> <li>Stimulation of Muscle</li> </ul>		ÓΙ
- Hydrogen Peroxide in		194	Electricity		55
			- in Amenorrhœa		102
- Magnesium Sulphate in	•	193	Construction of Children		
- Papoid in		194	— Constipation of Children		I 77
- Potassium Bichiomate in	43,	195	— Enuresis		241
- Salicin in .		193	- Epididymitis	••	243
- Salol in	-	193	- Ophthalmic Therapeutics		262
			- Scierodermia		
- Sodium Sulphate Waters in		193			446
- Somatose in		196	— — Ulcus Cruris		493
- Strychnine in		193	Electro-Diagnosis		59
- Sulphate of Iron in .		193 1	D		59
Combal on You on			- Therapeutics		
- Sumbul in Nervous		51			55
- 53 nopsis		Iun ,	Flectrolysis for Molluscumt ontig	1 1501111	
Dyspeptics and Tea Drinking		450	- in Pachydermia Luyngis		393
Dyspacer, Cupaine in		15	Xanthom 1 .		523
- Grindelia Robusta foi			Emol .		24
- Official Robusta for		30	- for Eczema		
			- Ioi isczenie		25
ELAM, W H Diagnosis of Diseases of		354	- in Keratosis		25
Ear, Diagnosis of Diseases of	•	196	- Kelect		574
- Disease, Naphtholate of Sodium	113		I motion, a Factor in Angio-Neur	111-15	122
- Diseases		217	Empyema, Nasal .		229
- Discharge from		206	- of Frontal Sinus		229
- Pain in or near .		'02	Maxillary Sinus		230
- Scoon and Spud	••	5112	Sphenoidal Sinuses		236
Easton's Syrup Tabloids			- Oxygen in		39
Easton's Synth Tanton's	**	574	Thurshalla Alugar	•	34
Eclampsia, Puerperal, Synopsis	•	442	Encephalic Abscess		200
Fczema .		2 '2	I ncephalitis, Synopsis		238
- Aisenic in .		224	Endometritis		-2 ∤8
- Belladonna in		221	- Chloride of Zinc Solution in		238
		226	- Ichthyol for		511
- Caustic Potash in	• •				2,1
- Change of Churite in		272	l — Semle .		238
- Chrysarobin in		225	— Sublimate Solution in		238
- Cod-Liver Oil in			- Synopsis -		239
- Diet in .		224	Fries sted Calculus .		144
				•	
- Electric Southe in		2 16	Lutere Fever	•	303
- Emol in .		15	Ansome west in		263
- Frgotin in	224	, 226	Carbohe Acid in	2111	264
- Gallanol for	20	, 226	— — Chloroform m		264
L bthrol an	,		- Thromas	•	26
- Ichthyol m		224	—— Diagnosis —— Iodine in	-6-	
- Lassar's Paste for		273	Louine in .	203,	264
- Mercurais m		222	— — Synopsis	***	239
- Musk in .		224	the Urme in		262
- of Hands and Fingers, Synopsis		229	Enteritis	- '	230
	,		- Bismuth in		
External Meatus		200			240
- Nostrils, Myriholine in		35	- Borax in		240
— Opium in		224	- Borie Acid iii .	**	240
- Oxide of Zinc Plaster for		223	- Bromide of Strontium in .		239
- Pepsin for		41	(3.)		
The same and a	•		1 (2	•	230
- Phosphorus in		224	- Castor Oil in		230
- Pick's Plaster of Salicyla Soup	for	223	- Hydrastis in		239
- Oumne in		224	- Linseed for		234
- Quinine in - Seboriha icum .		226	- Menthol m		239
Samuel and an				••	
- Strychnine in					239
- Suinbonal in	٠	224	- Olive Oil in	***	
- Surprional in	٠,	224	- Soda in	•••	249
- Sulphonal in	·.		- Soda in		249
- Synopsis	· ·	224	— Soda in . Entero-Anastomosis		338
- Synopsis Tannin Ointment for .	•	224 228 223	— Soda in		338
- Synopsis - Tannin ()intment for - Tar in		224 228 223 222	— Soda in . Entero-Anastomosis Enteroplasty Enterorrhaphy		345 345 338
- Synopsis - Tannin Continent for - Tar in - Thiolin	···	224 228 223 222 226	— Soda in Entero-Anastomosis Enteroplasty Enterorrhaphy Enuresis		340 340 340 340
- Synopsis - Tannin ()intment for - Tar in	· · · · · · · · · · · · · · · · · · ·	224 228 223 222	— Soda in . Entero-Anastomosis Enteroplasty Enterorrhaphy		345 345 338

I	PAGE		PAGF
Enuresis, Bromide of Potassium in	241	Ethmoidal Cells, Disease of	235
- Electricity in	2;1	Lthyl Alcohol in Pneumonia	427
- New Symptom in	211	— Bromide	26
- Strychnine in	24T	as an Anæsthetic	26
- Synopsis	242	Chloude in Epididymitis .	212
Epididymitis	242	- Iodide	27
— Chloride of Ethyl in	242	— for Nasal Catarth — — Tuberculosis of Laiyns	28
— Electricity in	2 (3	Tuberculosis of Larynx	28
— Guaracol in	243	in Bronchitis	28
- Pulsatılla ın	242	Hay Fever	28
— Salicylate of Sodium in .	242	Laryngitis	28
— Synopsis	243	Ozena	28
Epilepsy, Bromide of Gold and Arsenic		— — — Syphilitic Affections of Mouth and Nose	28
Bromide of Potassium in	245	— — Whooping Cough	82
- Bromoethylformine in	244 244	Eucalyptol in Infectious Bionchitis	151
- due to Contraction of Muscles	244	Eucalyptus for Coryza	179
- Hyoscin in	244	- Oil for Scarlet Fever .	272
- Simulo in	244	Europhen for Ulcus Cruris	493
- Sulphate of Duboisine in	244		193
— Synopsis	245	Eustachian Tube, Catarrh of Exanthematous Fever, Asclepias	-9-
Epistaxis	215	Tuberosa in	9
- in Children, Ergot for	245	Excision for Caruncle of Urethia	507
- Chromic Acid in	245	- of Knee Joint	390
- Galvano-Cautery for	245	— of Knee Joint — Lupus Vulgaris	368
<ul> <li>Hydrastis Canadensis for</li> </ul>	246	Exercise in Constipation of Children	177
Hydrochlorate of Cocaine in	247	Exophthalmic Goitre, Synopsis	250
- Rules for Patients	246	- Treated by Electricity	62
- Synopsis	247	Expression for Molluscum Contagiosum	374
— Tamponing Nostril for	247	Extractum Contions Cenebra	574
- Tannin for	247	Eyesight and Hours of Study	258
Trichloracetic Acid in 52 Epithelioma of Leg, Camphorated	, 247	- and School Life	250
Epitheliona of Leg, Camphoiated	,	Eye-wash	262
Phenol in	16	TARNIMICK E MIIDDY	
- of Middle Ear .	210	FENWICK, E HURRY, 138, 241,	300,
- Synopsis .	247	348, 430, 476, 505, 518, Fitzgerald 467, Fox, I Colcott, 84, 100, 126,	, ر
Epsom Salts in Erysipelas  — in Headache !	249	800, 248, 272, 280, 220, 220, 250	260
Ergole .	303 574	222, 248, 273, 289, 320, 330, 359, 367, 374, 434, 443, 446, 477, 490, 508,	522
Ergot for Epistaxis in Children	245	Faceache ,	303
- in Angio Neurosis	126	Faradaic Current	55
— — Angio-Neurotic Œdema	385	as an Analgesic	56
— — Angio-Neurotic Œdema — — Pruritus	436	for Sclerodermia	446
- Internally for Abortion 8	2, 83	Faradisation in Angina	116
- in Ophthalmic Therapeutics	261	Favin with Anchylostomiasis	112
— and Strychnine in Locomotor Ataxy	365	Fellows' Syrup and Arsente in Clim-	
	, 2≥6	acteric Insanity	334
- Gallate in Hæmoptysis	25	Fels's Germicide Soap	575
- in Urticalia	500	Ferratin 28,	574
Erysipelas	248	Ferrous Sulphide in Anæmia	103 262
— Antiseptics in — Calomel in	248	Fever, Enteric	202
- Carbolic Acid in	249	- Exanthematous, Asclepias Tuberosa	^
- Chlorate of Potassium in	249	- Puerperal	265
- Corrosive Sublimate in	249 248	- Scarlet	269
- Epsom Salts in	249	Fibroid Consumption, Aurum Metalli-	209
- Ichthyol Ointment in	249	cum in	10
	, 249	Filaria Medinensis	273
- Pilocarpine 11	248	Filariasis, Synopsis	275
- Quinine in .	248	Filter, new	544
	249	Finger Stalls	562
- Sparteine in	249	Fissured Nipples, Synopsis	149
- Sparteine in - Synopsis	33	Fissures, Lawsonia Incimis in	33
Sparteine in     Synopsis     Erysipelatous Fever, Lactophenin in	117	Fistulæ after Abdominal Section	79
Sparteine in     Synopsia Erysipelatous Fever, Lactophenin in Erythema-Urticaria	250		365
Sparteine in     Synopsis     Erysipelatous Fever, Lactophenin in     Erythema-Urticaria     Erythromelalgia, Synopsis		Fixing displaced Liver	
Sparteine in     Synopsis     Erysipelatous Fever, Lactophenin in     Erythema-Urticaria     Erythromelalgia, Synopsis     Ether for Anæsthesia	тоб	Flail Joints, Operative Treatment of	409
— Sparteine in — Synopsis Erysipelatous Fever, Lactophenin in Erythema-Urticaria Erythromelalgia, Synopsis Ether for Anæsthesia — for Infantile Convulsions	106 178	Flail Joints, Operative Treatment of Fomentations in Metritis	409 373
Sparteine in     Synopsis     Erysipelatous Fever, Lactophenin in     Erythema-Urticaria     Erythromelalgia, Synopsis     Ether for Anæsthesia	тоб	Flail Joints, Operative Treatment of	409

P	AGL	1	19.5	(F
Forceps, (Modification of Six Spinier		1	Glycerine in Sclerodermia	410
Wells')	56 t	ŧ	Gizero-Phosphites	30
Foreign Bodies in Stomach	ini		tor Nerrous Domession	30
- Body in Meatus of Eau	210		in Neurasthenia	30
Fowler's Solution in Cancer	105		- in Neurasthema - in Neurasthema - Phosphita Abaminum - Phosphorum Glycrole of Papoid for Treatment of	30
in Rhinoscleioma	41,		Phosphorma	30
Francisco London Angustica la Service	76x		Olympiale of Parcel for Treatment of	30
Fractures kept in Apposition by Sciens			Latoo Marks	. 6
- of the Tibia and Fibuli	275			167
Friedreich's Disease	252	1	Gottie, Cynoglossum Macrostylunbrige	
- Arsenic for	-73		in	20
- Cod-Liver Oil in	208		- Exophthalmic, Flectivally treated	6≥
— Diagnosis of	286		בורקטת נל	250
Ptiology	233	: !	Gold Bromide and Arsenic in Tpik psy	245
Nitrate of Silver in	್ವಾ೦8		Gonorlicea, Pepsin for	41
Pithology	97ء	, ;	- Synopsis	301
Prognosis	286		Gonorrhee d Endometritis	228
Symptoms of	281		C msties in	238
Symptoms of Frontal Sinus, Empyema of	227		the Curecte in	238
Functional Albuminum	04		Gouge for Bone Citting	562
	28.	,	Court Synonyis	302
Furunculosis	-89		Gout, Synopsis Gray Powder in Climateric Instituty	
— Jehthyol Vu nish for	289		Gindeha Robusta	334
- Liquor Pot issa, for				30
- Potash So ip in	-,7,1		— — in Asthm i	30
- Quinine for	2 <u>S</u> Q		Dyspaca	30
- Synopsis	·8)		— — Laryngismus Stridulus	30
— Yeast for	203		Guntacol 3,	575
_			- in Articulai Nem ilgia	32
CRANT J DUNDAS	196	, ,	- Compliorated, in Infectious Pron-	
Galactoph : itis	1 17	1	chitis	151
- Arsenic in	148		in Dispepsii	103
- Compression of Breast for	148		Epulidymitis .	243
Solution o' Naphthol for	147			,70
Sub'imate for .	147		Pleursy	
	148		- Rhamata Inflammation of Louis	32
— Treated by Alkalies	290		- Rheumatic Inflammation of Joints - Typhoid	32
Gall Bladder, Surgery of			15 photo	- 3 1
- Stones causing Intestinal Obstruction			und Aristol in Lupus Vulgaris	370
- Obstructing the Hepatic Duct	20		- Thymol in Lapus Vulgars	370
Gallanol •	29		Guiva Piant for Drutheea	187
	, 226		Gumea Worm Disease	273
— — Psoriasis , 25	, 111		Cubolic Lotion for .	274
Galvanic Current	58		Cubolized Poultiers in	275
— — for Paranora	336	5 1	Perchlorate of Mercury in	274
Galvanism in Torticollis	480	>	Precipitated Sulphur in	274
Galvanization of the Bi un	6:	3	Gullies for Drains .	539
Galvano-cautery for hipisticus .	245	5	Gums, Calcic Inflammation of 401	474
- for Tuberculous l'ons.ls	475	١.	Gymnastic Movements in Dysinchorthera	ioi
Gangrenous Cholecystitis	246			
Gas and Ether Inhaler	565		HAMILTON, ALLAN MILANE, N	Jaw.
Gastric Antisepsis	67		York, 97, 137, 174, 244, 2) 1, 3 2,	220.
- Ulcer, Bich omate of Potash in .	4			31
Gastritis, Magnesium Sulphate in	3,0		322, 365, 377, 445, 449 480, 488 Hæmatemesis, Synopsis Hæmaturra, Calcium Chloride in	302
Gastro Enteritis, Djamboe in	22		Hamatura Caloum Chlorden	
- Interestant			- Synopsis	75
- Enterostomy 340	, 464	1		303
Gastrotomy	461		Hamic Changes in Organic Albumin-	
Gelatum Eucalypti	575		uria	90
Gelsemine in Neuralgia	379		Hæmogallol in Anæmia	103
Gelsemium in Pruritus	435		Hæmoptysis, Ergotine Gallate for	25
Gentian in Climacteric Insanity .	334	+	- Synopsis	302
Germicide Solutions for Pruritus Vulva	438	3	Hæmorihage, Post Partum	304
Gerlier's Disease	299		Traumatic Intra Peritoneal .	18
Gingivæ, Structure of	468		Hamorrhoids, Synopsis .	302
Gingivitis 469	473		Hay Fever, I thyhodide for	28
- Listerine for .	47		Synopsis	302
- Sulphate of Copper in .	473		Headache	302
Gleet	300		Antonomon for	303
Glonom in Ophthalmic Therapeutics	261		- Connibir Index Con	
Glycerine in Bowel Obstruction of		٠ ا	···· ( *hlanasan	303
Children .	178	. 1		
			Data and Data and Land	303
- in Constipation of Infants	176	, 1	- Potassium Bromide in	302

r e	AGE	,	PAGE
Headache, Referred .	303	Hyoscin in Epilepsy	244
- Salicylate of Sodium for	302	— in Acute Mania	
- in School Life	251	Hyoscyamine in Acute Mania .	332
- Synopsis		Hyperiarosis	332
Heart Diseases	305		320
	305	— Alcohol in	320
— — Adonidin in	312	- Boro Glycerine in	321
— — Apocynum Cannabinum in	312	— Carbolic Solution in	321
- Attopine in	312	— Castor Oil in	321
- Caffeine in	312	— Chiomic Acid in	321
Chloride of Barium in	312	Hydrastis Canadensis in	322
Cocaine in	312	— Hydrochloric Acid in	321
— — Diagnosis	307	- Ichthyol in	322
Digitalis in	312	— lodol in	321
Nitro-Glycerine in	312	- Naphthalin in	320
Schott Method in	312	- Naphthol in	321
Strophanthus in	312	<ul> <li>Nitrate of Silver for</li> </ul>	321
— — Synopsis	314	- Perchloride of Iron and Glycerine	~
- Affections, Digitoxin in	21	ın	321
Heat in Angina	116	- Potass Permanganate in	321
- in Cases of Chancre	167	- Salicylic Acid in	321
- Stroke, Synopsis		— Salicyl-tale in	320
Hampleon Dhullunh in	314	— Sulphyran	350
Hemiplegia, Phulluah in	42	— Sulphur in	
Hepatic Abscess	362	- Synopsis .	322
Colic, Valerianate of Amyl in	54	— Tale in .	321
Heredity and Phthisis	425	Tannin in	320
Hernia	314	Hypertrichosis, Synopsis	322
— in the Linea Alba	316	Hypertrophy of Prostate	432
- Strangulated .	318	Hypnotics in Utticaria	509
- Vesical	319	Hypoderms, Soluble	575
Herpes, Synopsis	320	Hypophosphites in Phthisis	420
Hiccough, Synopsis	220	Hysterectomy, Abdominal 79,	376
Hip Disease, Distraction in	387	- Vaginal	375
Homes for Inebriates	598	Hysteria	322
— — Invalids	602	Sumbul in	51
Hot Air Baths in Delirium Tiemciis	99	- Valerianate of Amyl in	54
- Bath in Alcoholism	98	Hysterical Deafness	199
- Drinks in Bronchitis	149	•	
- Imagations in Metritis	373	I CTHYOL as an Injection for Catarah of Bladder	
- Spray for Alopecia Areata	100	of Bladder	138
— Spray for Alopecia Areata — _ in Croup	182	- in Eczema	224
- Water in Pruritus	435	— — Lenrosy	360
Hours of Study and Eyesight	258	- Ointinent in Erysipelas	249
	354	- in Uterine Therapeutics	510
Hydrarg-Perchlor in Anchylostomiasis	374	- Soap in Acne Vulgaris	87
		- Vainish for Furunculosis	289
Hydrastis Canadensis in Hyperidrosis	322	Idiocy	324
- in Enteritis	239		
— Epistaxis	246	- Craniectomy in	327
Hydrobromite of Iron for Pruritus		Impaction of Cerumen in Ear	197
Vulvæ	437	Impetigo	330
- Quinme for Pruntus Vulvæ	437	- Ammoniated Mercury in	330
Hydrobromic Acid for Piunius Vulvæ	437	Impotency Saw Palmetto in Indolent Ulcer, Pepsin for	47
Hydrochloric Acid as Gastric Anti-	1	Indolent Ulcer, Pepsin for	41
septic _	68	- Ulcers, the Nucleins for	38
— — in Anæmia Perniciosa	104	Inebilates, Homes for	598
— — Hyperidrosis	321	In antile Convulsions	178
Lupus Erythematosus	357	- Diarihœa	183
— — Phthisis — — and Gentian in Typhoid	42T	- Paralys s	348
- and Gentian in Typhoid	489	Infants, Constipation of	176
Hydrochloro-Sulphate of Quinine	45	- Sarcoma of Kidney in	350
Hydrogen Peroxi le for Croup	182	Infection Safeguard	542
— — for Chancre			
in Calcic Inflammation of Gums	168	infectious Processes and the Netvous	
		Infectious Processes and the Nervous System	378
	475	System Inflammation and Stenosis of Larynx	
	475 194	System Inflammation and Stenosis of Larynx	378 355
— — Dyspepsia — — Scarlet Fever	475 194 272	System Inflammation and Stenosis of Laryny Influence of Infectious Processes on	355
— — Dyspepsia — — Scarlet Fever Hydroleine in Phthisis	475 194 272 421	System Inflammation and Stenosis of Larynx Influence of Infectious Processes on Netwous System	355 378
— — Dy-pep-ia — — Scarlet Fever Hydroleine in Phthisis Hydro-Naphthol in Anæmia	475 194 272 421 103	System Inflammation and Stenosis of Larynx Influence of Infectious Processes on Netvous System Influenza, Synopsis Ingrowing Toe Nail	355 378 33°
— — Dyspepsia — — Scarlet Fever Hydroleine in Phthisis Hydro-Naphthol in Anæmia Hydropa,hic Establishments	475 194 272 421 103 599	System Inflammation and Stenosis of Larynx Influence of Infectious Processes on Netvous System Influenza, Synopsis Ingrowing Toe Nail	355 378
— — Dy-pep-ia — — Scarlet Fever Hydroleine in Phthisis Hydro-Naphthol in Anæmia	475 194 272 421 103	System Inflammation and Stenosis of Larynx Influence of Infectious Processes on Netwous System Influenza, Synopsis	355 378 33°

1 101	PAGL
Injections for Abortion 33	TONES, ROBERT. M. SY. 3 S.
- Bladder 1,3	Januare, Lanson Chermston 31
- of Serum for Neurostnera 5 1	- Nationals 31 i
— Subcut meous, in Lup is Valgais 351 . Injury, Abdominal 72	let most my
	Jonas (Arthritis) Symposis 34.
Instity 31t — Chiracteric 535	
- Synopsis	7,7 kR VIOSIS, kmol m 25
Insomnia of Mohoh-m, Sumbul in Si	Kidney, Fifteet of Chlorotom Nationals
- Synopsis 337	3,
Insufflation for Antisepsis of Air	on 345
Pissiges 70	- I strict 57"
- for Laryngeal Inherculous 79	- Operations in Advinced Age 550
Interceptor laps for Di uns 535	- Sarcoma of in Infants 353
Intercost d Neuralgia in Chlorosis 171	Kne ding Scalp in Moners Andra 100
Intermittent Fever with Anchylostomi	Knee Joint Disease 387
asis 112 ,	Knee Joint Dise ise 307 — Excision of 306
Intestinal Antiscosis 68	- Tubercular Ostms of
- Obstruction from Gall Stones 75	300
- Perioration . 317	T AND W ADDITION AS
- Surgery Introperational Harmorrhage 81	LANE, W ARBUTHNOT, 77 275, 480, Loomis, Hy P. Nev York, 410
Intubation for Croup	I abour
Intustisi option 314	— 22 nobere 325
Inunctions for Variota 317	Labymith, Disease of 200
Todide of Potish for Cerebril Lumous 4	Lietic Acid in Pachyderma I gyngro 373
in Ingini 116 1	in Pson isis 41)
and the second of the second o	Lactopheom 33, 576
Potassium in Circinonia of Throat 477	- m kryspel itous bever
Throat 477	1 yphord . 34
in Leptosy 360	Lap notomy, Iterma followin; 310
Pubyderma Luyngis 391	Lappa Officinalis
Iodine for Naise i of Unemia 407	- m Amenorrhoe i
- m Entern bever 203, 204	Chlegosis . 33
- Pachydeinn i Laryngis 3/3	I trynged Pachyderna . 391
- Salts in Psoriasis 459	- Stellosis - 354
- Therapy in Actinomycosis of Am- mals 88	- Lub reulosis, Insaither us for 70
	Laryngismus Stridulis, Conidelia Ro- busta in 33
	Laryngitis, Chronic 32
locoform as an Intestinal Antiseptic (a)	Chlorde of Zmc m
- in Bubo . 13	Perchloride of Iron in 35
- Diseases of An Passages 71	Vapor Cubeba m . 524
— Diseases of An Passages 71 — Gastrie Annicopsis 68	Vapor Cubeba in 554
Senile i iidometritis 248	- Ethyl Iodide in
Ulcus Ciuris 411	- in Young Men. 35
- Omtmest in Ulceration of Anns 128	Myrrholme m 35
Jodol in Hyperidiosis 321	- Sulphanilie Acid in , 51
Ipecacu inha in Anthrax r27	Laryny, New Growths in 357
Iron and Quinne in Chinacteric In-	- Stenosis of 350
Sanity 334	- of, from Inflamm thon 35
- Carbonate in Anaima 163	- Tuberculosis of, treated with Ethyl Iodide 28
— for Anamit — Hypodermically in Chlorosis 104	Lassar's Paste for Fozema 22
	Landanum Foment itions in Metritis 37
- in Acute Mania	- and Starch in Dysentery 193
- Anchylostomasis . 114	Livage in Amenia Permuosa 100
- Dyspepsia .	Lawsonia Incrinis 3
Frysmelas 248, 241	for Dian hoea 3
Ophthalmic Therapeutics 261	Fishings 3
— Ophthalmic Therapeutics 26r — Sciutica 445	
- Jellords . 575	Strickty 3
- Perchloride and Glyccrine in Hy-	Wounds.
peridrosis ., 321 of, in Chronic Laryngitis 353	- in Calculous Affections . 3
of, in Chronic Laryngitis 353	———— Chancres 3. ————————————————————————————————
- Sulphate in Ulcer of Stomach 459	
Irrational Therapeutics	Leprosy 3
Irrigation for Abortion 83	Migraine

	PAGE		PAGE
Lead Colic, Croton Oil in	19	Lupus Vulgaris, Bier's Method in	369
Leeches in Infantile Convulsions	179	- Blue Pyoktanın in	369
Leiter's Cold Coil for Pachydermia		- Canthaudate of Potash in	369
Laryngis	393	— — Carbolic Acid in	369
Lemon Inhalation for Coryza	180	Caustics for	3,28
Lepage's I reatment for Ciacked		— — Chromic Acid in	369
Nipples	148	- Cinnamic Acid Emulsion in	370
Leprosy	359	Excision for	368
— Aristol in	360	— — Guaiacol and Aristol in	370
— Boric Acid in	359	— — and Thymol in — — Molline in	370
— Chiysarobin in	360	Olosto of Morousus for	368
— Creasote in	360	- Oleate of Mercury for	368
- Hydroxylamine in	360	— Pyrogallol Vaseline in — Salicylic Acid for	369
— Ichthyol in — Lawsonia Inermis in	360	— — Schultz's Method	368 369
- Phenic Acid in	34 360	- Subcutaneous Intertions in	369
	3€0	- Thiosinamin in - Thyroid Extract in - Tuberculin in - Veiel's Method in	369
Salicylic Acid in Sublimate Solution in	359	- Thyroid Extract in	370
- Synopsis	360	— — Tuberculin in	360
Leucoplakia, Belladonna in	11	Veiel's Method in	368
Lichen Planus	360	Lysol Enemata in Dysentery	191
- Temperate Douches in	360		-
I lebig's Extract in Catarih of Stomach		MACDONALD, GREVILLE, pp.	166.
Life Assurance Offices, Index of	637	M 352, 354, Mackenrie, Hector W 282, Milligan, Wm, 229, 391, 44 Magnesia, Sulphate of, 111 Ulcer ot	G.
Lighting of Schools	253	282, Milligan, Wm , 220, 301, 44	.6 ′
Lime Water for Croup	182	Magnesia, Sulphate of, in Ulcer of	
for Nausea of Uræmia	497	Stomach	459
and Porter in Phthisis	421	Magnesium Citrate in Constipution of	
Linea Alba, Hernia in	316	Children	177
Linimentum Saponis for Acne Vulgaris	87	— — in Dyspepsia	193
Linseed for Enteritis	239	- Sulphate	34
Lint, Christia	ანo	— in Gastritis	35
Liq Arsenicalis in Diarrhoea after		Malacine .	35
food	185	— in Neuialgia .	35
Liquor Calcis Chlorinatæ in Pruritus		Rheumatism .	35
Ani 129	, 438	Malaria, Synopsis	370
- Potassæ in Furunculosis	289	Malformations of Uterus	511
Listerine in Gingivitis	473	Mania, Acute	33 t
Lithium Biomide in Auial Vertigo	221	Maniacal Excitement, Synopsis	37 I
Litholapaxy	144	Marrol Martin's Mathod of Hay to antonio	58 t
Lithotomy	144	Martin's Method of Hysterectomy	376
Liver, Curhosis of, Synopsis	36 t	Massage Bail — for Alopecia Arenta	566 100
- Cystic Degeneration of	36 r		
- Inflummation, Lawsonia Incinis in	34	— Piurigo — — Scleiosis of Middle Ear	434
- Resection of	363 361	- Ulcus Ci uris	4¢3
Surgery of Local Government Board	616	- in Anæmia Peiniciosa	105
Locomotor Ataxy	365	- Cardiac Asthenia	311
- Atropia in	366	— — Constipation of Children	177
— Iodide of Potash in	365	— — Diarrhœa	185
— — Morphine in	366	Infantile Convulsions	179
- Phenacetin in	365	Sciatica	445
- Phenocol in	366	Sclerodermia	445 446
— — Synopsis	366	Mastoid Operations, the Curette and	• •
Loretin	34	Bur in	219
Losophan in Tinea Versicolor 478	3, 479	- Region, Pain in	201
Lotions for Acne Vulgaiis	` 86	Maxillary Sinus, Empyema of	230
- for Urticaria	509	Measles	371
Lunacy boards	616	Meat Diet in Phthisis	417
I ungs, Cirrhosis of, Aurum Metallicum		— Juice	58≥
ın	10	Meatus of Ear, Abnormality of	215
- Diseases of, Synopsis	366	— Abscess in	217
Lupus Lrythematosus	367	Medical Annual Note Book	627
- Hydrochloric Acid in	367	— Council	615
- Hyposulphate of Sodium in	367	— Lamp	567
Paint for	367	- and Scientific Newspapers	624
— Phosphorus in — Synopsis	367	— — — Societies  Medianted Society for Aona Vulgaria	617
— — Synopsis	367	Medicated Soaps for Acne Vulgaris	85
- Vulgaris	368	Menière's Disease	199

	AGE	T	PAGI
Menorrhagia, Synopsis	373	Mustard Biths in Infintile Convulsions	17
Menstru d Disorders, Senecio Jacobea		Myones, Punhysterectomy for	37
111	47	- Uterme	37
Mental Detects and Adenoids	3 20	Myop am School Life	25
— New Methods of Treatment	-24	Myringitis, Acute	20
Menthol in Enteritis	-3}	Mynholme	3
— Pruntus	135	- in legina	3:
Mercurial Baths for Viriola	517	- lubercular Laryngins	- 5
- Omement in Anthrax	12)	Myxa dem i, "ynopsis	>77
- Stomatitis, Behadonna in	11		
- Liemor, Synopsis	‡32	N JA TRIPUDIANS	₹:
Mercurials in bezenit	2 2	in Cholcia	3
Mercury in Atrophy of Optic Nerve — in Aural Vertigo	cor	- Septicamir - Yellow Fever	اد
- in Aural Vertizo	272	N' mich des and the second trans-	31
- Ammonisted in Impetigo	337	Nuplithalin is in Intestinal Antiseptic — for Gastin Antisepsis	n
- Buhloude in Printins	135	- tor Gustin Antischers	n,
- Ermodide in Diphtheria	To 3	- in Hyperdrosis	3.3
- Omment in Acid Vulgus	2.3	Nuphthola is in Intestinal Antiscotic	tn
- Ofeate of, in Lapus Vulgaris - in Typhus	31 8	- in Hyperidrosis	3 3
- Perchloride in Gume i Worm D s-	4-1	<ul> <li>Solution for Galactophoritis</li> <li>Suphtholate of Sodium</li> </ul>	147
- Telemonde in Onnet Worm 174	274	is an Antiscpin	37
Methyl Blue in Camer	104	n b u and Nose Diseases	37 37
Methylene Blue for Printus Vilva	453	Nasil Atomizer	50
Metonis	37.3	- Cataril, I thy I Todale for .	507
- Blisters for	373	- Empyema	220
- Compresses for	373	N iso phaying. Disease of	20
- Hot lirig tuon in	373	N iso phayny, Disease of N iv d Medical Department	tixe
- Laudanum Foment thous in	373	Nebulizer	5 17
- Rest m .	373	Nebulizing Solutions	570
Metrorihagia, Synopsis	373	Needle Holder	51)8
Mu robicides, Cinnamon Oil as	17	Nephrus, Chrone, As probri	
Microceph dus, Ci ancetomy in	327	Nephrortighy	351
Middle Ear Citarrh, Acme	203	Nerve remmers .	I G
Catarih of	,	- Stretching in Seratica	44
- Sclerosis of	310	in Torthollis	44
- Suppuration of 19%, 15%		- Tonics, Sumbul is Nervous   Depression, Glycero-phos-	51
Migrame, Lawsenia Incimis in	3 #	Nervous Depresion, Givero-phos-	
— Synopsis Miliary Tuberculosis, Aurum Metalli	373	phates for Diseases	30
cum in	10	I lective il Resetions in .	177
Milk in Phthisis	417	- Dyspepsi i, Sumbul m	5
Mitral Discase, Pheobroniue in	5.2	- System, Influence of Infectious Pro-	٥.
Molline in Lupus Vulgaris	368	Lesses on	378
Moliuseum Contagiosum	174	Neuralgra	375
( arbolic Acid for	374	Armular, Guaracol in	3.
Chromic Acid for .	374	- Croton Oil in	ıίι
Corrosive Sublimate for	374	r Gelsemme in .	379
— — Electrolysis for	174	- Intercost il in Chlorosis	17
- Expression for	374	Malacine in	3.5
Morphia in Angina	110	of Lympanic Plexis	20
	1-7	- Sambal in	5
- in Bronchitts	150	22 nobels "	380
Cases of Abortion .	83	Neuristhema	.,80
Locomotor At 183	31363	Glycero-phosphetes in	30
Par mora	339	- Injections of Scrum for	38
The Pleurisy	427	- Rest Treatment of - Sumbul in	38
Morphinomania, Synopsis Month and Throat, Antisepsis of	374	- Station in	38:
- Affections, Belladouna in	IT	Testual a Fluid for	13
- Washes, Antiseptic	07	Neuritis, Synopsis	38:
— for Infectious Bronchitis	151	Neurodin .	30.
Mucous Patches of Mouth, Belladonna	- 0 -	Neurotic Albuminum i	93
for .	II	Disease of the aged, Aurum Metal-	7.
Muscle Stimulation by Electricity	61	heum m	3.0
Muscular Atrophy	137	Neuroses of Stomach	460
Musk in bezema	224	New Inventions, etc	55
- m Yellow Fever	524	- Remedies, Dictionary of	,
- Root	SX	- Treatment	7:

р	AGF	Ĭ	PAGE
Nicotine in Asthma	136	Organic Albuminuria	90
Nipples, Cracked	148	Orthopædics	386
- Boric Acid for	148	Osteomalacia	390
— — Solution for	148	<ul> <li>Synopsis</li> <li>Treated by Porro's Operation</li> </ul>	391
- Synopsis	149	- Treated by Porro's Operation	390
Nitrate of Silver for Bubo		Otalgia	202
for Hanney June	153		
for Hyperidrosis	34	Ottic Sinus-Phlebitis	446
— — Amyl in Angina — — in Whooping Cough	116	Otitis 203,	208
in Whooping Cough	523	- Media, Sulphanilic Acid in	51
Nitro glycerine	37	Owaritis, Synopsis	391
in Anguna Pastari	116	Oxalic Acid for Amenorrhæa	
in Angina Pectoris			IOI
Asthma	136	Oxaluric Albuminuria	95
— — Asthma — — Heart Disease	312	Oxygen	39
Ophthalmic Therapeutics	261	— and Nitrogen in Uræmia	497
Scis.ica		- for Pleuritic Effusion	
TI-mmin	445		39
Uraemia	497	- in Bronchitis	39
— — Vomiting	520	— Cases of Cardiac Failure	39
Noises in the head	210	— — Chlorosis	39
Nose Affections, Naphtholate of Sodium		Empremo	39
in		- Phthisis - Pneumonia - Pneumonia - Pheumonia	
	37	Disamente	39
- Synopsis	382	Inemionia	39
Nucleins, the 38,	577	Pheumothorax	39 82
- ın Amygdalıtıs	38	Oxytocies in Abortion	82
Diphtheria	38	Oxy-vaselme	30
- for Indolent Ulcers	38	Ozæna, Ethyl Iodide in	39 28
No. and Tradet Cities			20
Nursing Institutions	620	- I richloracetic Acid in	53
Nursing Institutions Nutrient Tonic, Saw Palmetto as	46	- Saluminum in	53 46
Nutritional Power of Electricity	56	Ozone	40
Nux Juglans	38		
— in Sciofula	38	PEARSE, WM H, \$ 423, Priestley J	FOT
— In Sciolula	30	Pachydermia Laryngis	235
- AM TIT OTTEN	_		27~
OAT FLOWER Obesity, Synopsis Oblique Simple Fricture of Tibia and	582	— — Acetic Acid in	393
Obesity, Synopsis	383	— — Flectrolysis in	93ء
Oblique Simple Fracture of Tibia and			393
Fibula	275		393
		Luctic Acid in	
Obstruction of Bowels in Children	177		393
Obstructive Anuria	506	- Leiter's Cold Con for	393
- Deafness	197	— — Salt Water in	393
Occlusion of Ureters .	595		149
Œdema, Angio nemotic	383		500
	200		
Official Directory	615		134
Oiled Cimbric	568	Pancreas, Atrophy of	397
Ointment for Typhlitis	488	— Cyst of	395
Ointments for Acne Vulgaris	86	- Surgery of	393
Oleate of Mercury in Lupus Vulgaris	368		121
		Pancreatitis, Acute	
— — in Typhus	489	Dankaratanastanas for Marana	398
Oleum Ferebinthinæ in Typhus	489	Panhysterectomy for Myoma	375
Olive Oil in Enteritis	239	Papayotin and Carbolic Acid in Diar-	
Ophthalmic Therapeutics	260	rhœa	189
— — Antipyrin in	26I	Papilloma of Bile Duct	299
	251	Papillomata of Larynx	
- Diomide of Locassidin in			357
of Sodium in	261	rapoid in Dyspepsia	194
— — Cannabis Indica in	261	Papoid in Dyspepsia  — Glycerole of, for Tatoo Marks	467
— — Electricity in	262	Paralysis Agitans, Synopsis	398
— - Ergot in .	261		398
- Eye wash for .	262		407
- Isye wash for		Paranoia	
- Glonoin in	26r		335
- Iron in	261	— Alom in	337
Nitrate of Silver in     Nitrate of Amyl in	261	- Ammonium Bromide in	336
- Nitrite of Amyl in	261	- Cannabis Indica in	336
Nitto or almost in	261	Galvanic Current in	226
— — INITIO-grycerine in			336
	261	- Morphine	336
— — Strychnine in	261	- Salıx Nigra in	336
Opium in Angina Pectoris	116	Paregoric for Croup	181
- in Eczema	224	Parenchymatous Changes in Albuminui in	
— in Eczema — — Uræmia	406	Parolein Injections for Sclerosis of	. ,
— Urasilia	496	Parolein Injections for Sclerosis of Middle Ear	218
- Suppositories in Ulceration of Anus	120	D.L. C. Middle E.Tr	218
Optic Nerve, Atrophy, Mercury in	260	Pelvic Suppuration Complicated with	
Orchitis, Synopsis	385	Vesical Fistulæ	139

P \GI	1		P	1GE
Pemphigus, Synopsis 411		Phulluah as an Anodyne		42
Penetrating Andominal Wounds . 78		- as in Antiseptic		7-
		- II must an		42
Pental 40		— in Hemiplegia		42
Pepsi i 4	r į	Pick's Plaster for Eczema	••	223
<ul> <li>Dismuth and Charcoal Lablords 577</li> </ul>	7 1	Pigmentation of Skin, Synopsis	••	426
- Insence 5		Pilocarpine in Acute VI ima		333
	. l	- in Auril Vertigo		
		- Il Alli ti vertigo		222
Gonorrhoga 41	1	Dermatitis .		184
- in Indo'ent Ulcers 41	1	Erystpelas		248
1 hthisis 421	r	Piuritus		436
Perchloride of Iron and Glycerine in		— — L ræmia		106
	- 1			496
Hyperidiosis 321		Piperazin for Uraenna		498
m Chrome Laynestes 35	3	Pixol		42
Perfor ition of Membrane of Ital 198	કે !	Placenta, Removal of		352
- of Typhoid Ulceration of Intestine 31;	<del></del> 1	Plague at Hong Kong		
		Plennsy	•	547
Pena adatis				426
Perchondrins, Sulphate of Calcium in 55	, 1	Asclepias Luberosa in		9
Peritoratis pr		- Guarreol in		32
- Imerellar pr		- Morphine in		427
Pentyphints, Rueumata 1.		- Salicylic Acid in		
	. 1	- is mostic reciti in		426
Permanganate of Potash in Lupus	1	- priobriz		427
Lixth mitosus 367	7	Pleutitic Effusion, Oxygen for		39
Peroxale o Hydrogen for Chance it	. 1	Pleurodynia, Asclepias Tuberosa in		9
in Calcie Inflammation of	,	Pneumoni		427
Gums 47		- Asclepits Luberosa in		Q
Stulet Fever 7.		- Chloride of Sodium in		428
Pertussis, Synopsis 41 Pessaries, Air 5		Digitalis in		427
Pessaries, Air 5		- Digitoxin in		21
Petroleum Emulsion (Anguers). 57		- Fthyl Alcohol in		
				427
Phagedana Percementates 471, 47	7	- Oxygen in		39
Phumuy, Progress m 57	, ,	- Strychnine in		428
Pharyngo mycosis, Synopsis 41	to !	- Synopsis		420
Phuyny, Synopsis . 41		Venesection in		429
		Day assembly and Owner or an	• •	
Phenacetin in Locomotor Maxy 36		Pheumothorax, Oxygen in	•	39
- in Princitus	13	Porket Medicine Case		<b>56</b> 0
Phenate of Quinne for Anthrex . x	ř	Podophyllin in Constipation of Child	11 31	177
Phone Acid in Leprosy 26	17	Polio-myehtis		399
		Polypus		
in Rhinoscicioni ; 41			207,	
Inherentous l'onsils 17		Porro's Operation in Osteomalacia		390
Phenocol in Locomotor Many 8	1	Porter and Jame Water in Phthisis		421
Phenol Compliorated a	() (	Post-n isal Catarrh		166
Phlebitis of the Literal Smus 22	263	partum Hæmorrhage, Synopsis		302
		Potash Canth and ite in Lapus Vulga	110	ვრე
	313	- Caustic, in Eczema		226
Phosphorus 4	١,	- Indide in Locomotor Army		365
	4	- Permany mate in Vulvo-Vaguaris		521
	57	- Permanganate in Vulvo-Vagnatis - Salts in Uræmia		
		- Said in Oracina .		495
	'ax	- Soap in Furunculosis .		280
X inthoma				
	' 1	Potassium Bichromate		
Photography of the laying Unitina 5		Potassium Bichromate	43.	43
	7	in Dyspepsia	43,	19
Phthisis and Atovism 4	7	- in Dyspepsia Gistric Uker	43	43 19 43
Phthisis and At wish  - Heredity  47	7	- m Dyspepsia	43,	43 19* 43 523
Phthisis and At avism  - Heredity  - Cod I iver Oil in	7	- m Dyspepsia Gistric Ulcer - Bit utrate in Yellow Fever - Bionide in Aural Vertigo	43,	43 19 43
Phthisis and At avism  - Heredity  - Cod I iver Oil in	7	- m Dyspepsia Gistric Ulcer - Bit utrate in Yellow Fever - Bionide in Aural Vertigo	43,	43 19 43 523 221
Phthisis and At wism  — Headity  — Cold I wet Oil in  — Drurhe yot, theeked by Dyambor	7	- in Dyspepsia	43,	43 19 43 523 221 241
Philisis and Atavism  — Headity  — Cod I iver Oil in  — Drumbia vol, checked by Drambos  — Dietetta Francia to of	7	- m Dyspepsia	43,	43 19* 43 523 221 241
Phthisis and At Avism	7	- m Dyspepsia	43.	43 19* 43 523 221 241 244 302
Phthisis and Atavism  - Heredity  - Cold I wer Oil in  - Drurba vot, thecked by Drumbos  - Dietetic Freatment of  - Guanciol in  - Hydrochloric Acid in  4	7	- m Dyspepsia	43.	43 19 43 523 221 241 244 302 246
Phthisis and At Avism	7	- m Dyspepsia	43.	43 19* 43 523 221 241 244 302
Phthisis and At Avism	7	- m Dyspepsia Gistric Ulcer - Bit utrate in Yellow Fever - Biomide in Aural Vertigo in Enuresis - Epilepsy Head iche - Chlorate in Eryspelas in Ophthalmic Therapeutics	43,	43 19 43 523 241 241 302 249 261
Phthisis and At Avism	7   10   10   10   10   10   10   10   1	- m Dyspepsia Gistra Uker Bit utrate in Yellow Fever Bounde in Aural Verigo in Enuesis Epile psy Head iche Chlorate in Eryspelas in Ophthalmic Therapeutics Iodide for Cerebial Tumours	43,	43 19* 43 523 221 244 302 245 261 488
Phthisis and At Arism	7 1 10 71 10 71 1 21 21 17	- m Dyspepsia Gistric Ulter Bit utrate in Yellow Fever Brounde in Aural Vertigo in Emitiesis Endepsy Liad iche Chlorate in Eryspelas in Ophthalmic Therapeutics Idide for Cerebial Tumours in Actinomycosis of Animals	43.	43 19* 43 52; 241 244 302 246 26; 488
Phthisis and At Avism	7 1 10 71 10 71 1 21 17 17	- m Dyspepsia Gistric Uker Bit utrate in Yellow Fever In Enuresis Epile psy Healtiche Chlorate in Eryspelas in Ophthalmic Therapeutics Indide for Cerebial Tumours in Actinomycosis of Animals Angina	43	43 19* 43 523 241 244 302 246 265 488 88
Phthisis and At Avism	7 10 10 10 17 17 17 17 17 17 17 17 17 17	- m Dyspepsia Gestric Ulter Bit utrate in Yellow Fever Bit utrate in Aural Vertigo in Ennuesis - Epile psy Head tehe Chlorate in Erryspelas in Ophthalmic Therapeutics - Iodide for Cerebial Tumours - in Actinomycosis of Animals - Angina - Pachydermia Laryngis		43 19* 43 523 241 244 302 246 265 488 88
Phthisis and At Avism	7 10 10 10 17 17 17 17 17 17 17 17 17 17	- m Dyspepsia Gestric Ulter Bit utrate in Yellow Fever Bit utrate in Aural Vertigo in Ennuesis - Epile psy Head tehe Chlorate in Erryspelas in Ophthalmic Therapeutics - Iodide for Cerebial Tumours - in Actinomycosis of Animals - Angina - Pachydermia Laryngis		43 19* 43 52; 241 244 302 246 26; 488
Phthisis and At Avism	7 10 10 71 1 10 17 17 17 17 17 17 17 17 17 17 17 17 17	- m Dyspepsia Gistric Ulcer Bit utrate in Yellow Fever Bronide in Aural Vertigo in Emitesis - Epilepsy Had iche Chlorate in Erryspelas in Oplithalmic Therapeutics - Iddide for Cerebial Tumours - in Actinomycosis of Animals - Angina Pachydermia Laryngis - Permanganate in Lupus Eryther		43 523 221 241 302 245 488 88 116 393
Phthisis and At Avism	7 10 10 71 12 17 17 34 21 21	- m Dyspepsia Gistra Uker Bit utrate in Yellow Fever Bronade in Aural Vertigo in Enuiesis Epile psy Head iche Chlorate in Eryspelas in Ophthalmic Therapeutics Iodide for Cerebial Tumours in Actinomycosis of Animals Pachydermia Laryngis Prachydermia Laryngis Pramaganate in Lupus Eryther tosus		43 523 221 241 302 246 263 488 116 393
Phthisis and At Avism	7 11071 1071 1771 1771 1771 1771 1771 1	- m Dyspepsia Gistric Ulter Bit utrate in Yellow Fever Bit utrate in Yellow Fever Bit utrate in Aural Vertigo in Enuiesis - Findepsy Had tehe Chlorate in Erryspelas in Ophthalmic Therapeutics Iodide for Cerebial Tumours - in Actinomycosis of Animals - Angina - Pachydermia Laryngis - Permanganate in Lupus Eryther tosus - Salicylate in Yellow Fever		43 52 24 24 30 24 26 48 88 116 39 36 52
Phthisis and At Avism	7 10 10 17 17 17 17 17 17 17 17 17 17 17 17 17	- m Dyspepsia Gistric Uker - Bit utrate in Yellow Fever - Bounde in Aural Vertigo in Enuiesis - Epile psy Head iche - Chlorate in Erryspelas in Ophthalmic Therapeutics - Iodide for Cerebial Tumours - in Actinomycosis of Animals - Angina - Pachydermia Laryngis - Permanganate in Lupus Eryther tosus - Salicylate in Yellow Fever Pott's Disease	: :	43 523 221 241 302 246 263 488 116 393
Phthisis and At A ism	7 1 10 77 1 21 21 27 17 17 17 17 17 17 17 17 17 17 17 17 17	- m Dyspepsia Gistric Ulter Bit utrate in Yellow Fever Bounde in Aural Vertigo in Ennuesis - Eight psy - Head iche Chlorate in Eryspelas in Ophthalmic Therapeutics - Indide for Cerebial Tumours - in Actioomycosis of Animals - Anguna - Pachydermia Laryngis - Permanganate in Lupus Eryther tosus - Salicylate in Yellow Fever Pott's Disease Poulities Carbolized in Guinea Woi	: :	43 52 24 24 30 24 26 48 88 116 39 36 52
Phthisis and At Avism	7 1 10 77 1 21 21 27 17 17 17 17 17 17 17 17 17 17 17 17 17	- m Dyspepsia Gistric Uker - Bit utrate in Yellow Fever - Bounde in Aural Vertigo in Enuiesis - Epile psy Head iche - Chlorate in Erryspelas in Ophthalmic Therapeutics - Iodide for Cerebial Tumours - in Actinomycosis of Animals - Angina - Pachydermia Laryngis - Permanganate in Lupus Eryther tosus - Salicylate in Yellow Fever Pott's Disease	: :	43 52 24 24 30 24 26 48 88 116 39 36 52

	PAGE	1	4GF
Powders for Urticaria	509	Psoriasis, Lactic Acid in	430
Præphthisis	423	- Iodinė Salts in	439
Pregnancy, Synopsis	430	Salicylic Preparations in	439
Primus Virginiana	45	- Synopsis	44 I
— — as a Cardiac Tonic	45	— Thyroid Extract in	439
Prostate, Diseases of	430	Puerperal Convulsions	179
— Hypertrophy of  — ot and Castration	430	- Eclampsia, Synopsis	442
- Scissors	431 430	Fever, Prevention of     Septicæmia, Synopsis	265 442
Prostatectomy and Cystitis	430	Pulmonary Regurgitation	307
- Suprapubic	430	Pulsatilla in Enididymitis	242
Prostatic Hypertrophy, Bier's Opera-		Pulse Rate and Tension in Albuminuria Purge for Typhlitis	
tion for	433	Purge for Typhlitis	95 <b>4</b> 88
— — Synopsis	434	Purpura Hæmorrhagica, Calcium Chlo-	•
Protective Material	570	ride in	15
Prurigo	434	Pylorectomy	464
- Effleurage for	434	Pylorus, Adhesions around a cause of	_
— Massage for	434	Stomach Dilatation	461
- Sulpho-phenate of Sodium for	434	Pyoktanın Blue in Lupus Vulgaris	369
Pruritus	434	Pyorrhœa Alveolaris	467
- Antipyrin in	435	Pyrogallol Vaseline in Lupus Vulga-	
- Bichloude of Mcrcury in	435	118	369
- Bromides in	435	OUININE and Iron in Acute Mania	222
Camphor in     Camphorated Phenol in	435 16	- for Furunculosis	333 289
- Cannabis Indica in	435	in Angio-Neurosis	125
Carbolic Acid in	435	— — Aural Vertigo	222
- Chloral in	435	— — Croup	182
- Chloroform in	435	— — Eczema	224
- Cocaine in	435	— — Erysipelas	248
<ul> <li>Cyanide of Potassium in</li> </ul>	435	— — Pruritus	436
- Ergot in	436	Whooping Cough	522
— Gelsemium in	435	- Disulphate, in Urticuia	509
- Hot Water in	435	- Hydrochloro sulphate of	45
— Menthol in	435	- Phenate of, in Anthrax	120
— Quinine II.	436	TO IDION I Change ale and Pol	
— Phen icetin in	435	R IDLON, J, Chicago, 386, 398, Rol A W Mayo, 78, 129, 290, 314, 361, 393, 412, 451, 491, 198, Rock A D, New York, 55, Ruffei,	224
- Pilocarpine in - Resolcin in	436 436	26T 202 4TZ 4ET 46T 108 ROCK	33/1 He z
- Salicylic Acid in	435	A D. New York, ss. Ruffer	M
— Salol in	435	Armand, 525	-11
— Sulphanol in	435	Railway Spine, Synopsis	442
- Synopsis	139	Reading in Schools	256
— Thymol in	435	Rectum, Bleeding from stayed by Cal-	_
- Vinum A itimoniale in	436	cium Chloride	15
- Water and Glycerine for	435	- Diseases, Synopsis	442
- Ani	138	Recurrent Appendicus Red Marrow (Extract of)	131
- Bone Plug for	438	Red Marrow (Extract of)	582
Calomel in	129	Referred Headache	303
Liquor Calcis Chlorinatæ for U	120	Regulating Inhale: Renal Calculus, Synopsis	560
ceration of  — Synopsis	129	- Colic, Belladonna in	442
— Vaseline for	129	- Stimulants Sparteine	50
- Vulvæ	436	Stimulants, Sparteine Resection for Varicocele	516
- Black and Yellow Wash for	438	- of Livei .	363
Boile Acid for	438	Resorcin in Pruritus	430
Bromides for	437	- Sublimate Paste for Acne Vulga-	
— — Cocame for	438	118	٤7
— — Germicide Solution for	438	Rest in Angina Pectoris	116
<ul> <li>— Hydrobromates of Iron for</li> </ul>	437	- in Enteric Fever	263
— — of Quinine for	437	— Metritis	37
- Hydrobiomic Acid for	437	- Treatment in Neurasthenia	381
- Methylene Blue for	438	Review of New Inventions, etc	551
— — Salicylate of Sodium for	437	— of Therapeutic Progress	1
— Valerian for	437	Rheumatic Inflammation of Joints,	32
Pseudo-angina	115	Guaiacol in  — Perityphlitis	13
Psoriasis — Christian chip in	439 439	Rheumatism, Asclepias Tuberosa in	~ 5
— Chrysaiobin in — Gallanol in 2	9, 441	- Asapiol in	8,
	·/ ·/T-	E	

p	AGE		· ·	1 C E
Rheumatism, Chronic, Croton Oil in	19		Salumn um m Oz una	40
- Malacine in		,	Salves for Urticana	509
- Synopsis	44-	į.	Sunious Discharge from Lur	210
Rheumatoid Arthritis, Synopsis	443	ĵ	Suntry Conference Resolutions	514
Rhinitis, Acute Cat wih il, Sulphanilic	110	1	- Science	531
Acid in	5I	1	Santal Oil	578
- Synopsis	143	,	Suntonin in Dysmenorthic i	102
Rhinoscleroma	143		Sapoten	16
- Fowler's Solution in	413		Sucoma of Kidney in Intants	750
- Phenic Acid in	445		- of Middle Ear	210
- Sublimate for	112		Sucouritosis Cutis, Synopsis	444
- Sublimate for - Thy mic Acid in	413		Saw Palmetto	40
Rhubub and Gentian in Climacteric	113		as a Nutrient Tome	40
Insanity	134		- as a Nutrient Tonic - in Sexual Impotency	47
Rinne's Lest	17		Sixol	578
Roncegno Water	577		Scalites, Synopsis	414
Rotheln	143		Shail itina, Synopsis	444
Rubber Bundage for Uleus Cruris	400		Sculet Fever	260
Rubidium Iodide	45		- Oil for Outward Apple aton in	77
Rupture of Urmary Bladder 799	, 130		Peroxide of Hydrogen in	272
— — Stomach	103		School Life in connection with Fig.	-/-
Ruptured Ureter	50.		Sight	250
	-		Schools, Lighting of	251
S ANDWITH, F. M., Cano, 163, Sum Robt., 455, Shuw, Jas., 331, Shu worth, fr. F., 324, Smith, W. Ram 117, 383, Smyly, Win. J., 265, Snell, Simeon, 250, Stewart, W. B.	dbs.		- Seating of Children in	-55
Doby 455 Show I'm 327 Sho	1116		School Method in Heart Disease	31.
worth to be not Smith W Ram	×.7 V.		Schultz's Method in I upus Vulg iris	,60
The sea Small Way I was	172	÷	Sciatics	
Smill Suppose and Step at W. B.	7/7 *		- As aprol in	445
Did dalah 100	,,,,,,	1	- Corame in	
Philadelphia, 495 Safeguard against Infection	542	ŀ	- Cod-Laver Oil in	145
	45		( toton Oil in	4 + 5
Salacetol Distribusion	40	1	- Dry Cups in	14
— in Choleraic Diaithea — — Diaithea	187	-	- Iron in	445
Solom in Dianami		Ì	- Massage in	44
Salien in Dyspepsia Salicylate of Potassium in Yellow Fever	721	- 1	- Neive Stretching in	115
Sancylate of a Ottavitation in a criow Pever	68	- 1	Nitio-Glycerine in	445
— — Soda as Gastric Antiseptic — — Sodium for Headache	302	- [	Synopsis	. 44
- Godfall for Freduncisc	, 222	- 1	Sclerodermit	143
— — in Aural Vertigo	524	- 1	- Plectricity in	44
Sales le Neul in Hansau sons	3-I	Ì	- Fradae Current for	44
Salicylic Acid in Hypericrosis  — in Leprosy  — I upus Vulgaris	,50	1	- Glycerine in	441
- I man Vulture	,68	- 1	- Massige in	44
Plemisy	426		- Salicyhe Vaseline in	44
Piuritus	4 5		- Sitz Biths in	446
Yellow Fever	524		Sclerosis, Aurum Metallicum in	446
Injections for Cancer	7614		- of Middle I at	21
- Ontment for Dermatitis	184	- 1	Screws, as Means of Uniting Fractures	28:
- Plaster (Unna's) for Acne Vulgaris		- 1	Scrofula, Nux Juglans in	35
- Preparations in Psonasis	439	- 1	— Synopsis	
- Vaseline in Sclerodermia	446	- 1	Sea Sakness, Synopsis	44
Salieyl-tale in Hyperidrosis	3 0	- 1	Seborrhaic Rosnea	228
Salme Aperients in Cancer of Stomach	460	- 1	Seminal Vesiculitis	518
in Creatile of Stomach	458	1	Senecio Jacobina	
- Injections in Abortion	83	- 1	- m Menstrual Disorders .	47
in Cholera	173		Senile Endometritis	7,
- Infusion, Imravenous, for Unamin	427		— — Iodoform in	4; 3; 3;
- Solution in Anaemia Permeiosa	103		Senna	4
Salix Nigra in Chimacteric Insanity .	334		- m Constination	4
- in Paranoia	, 36		— in Constipation Septicamin, Naja Tripudians in	3
Salol for Intestinal Anti-cpsis	7,8	1	- Puerper il, Synopsis	443
- in Anamia .	103		Scrous Cavities, Antisepsis of	77.
- Angio Neurosis	125		Serum Injections for Tuberculous	-
Dyspepsia	193		Tonsils	47
- Pruritus	435		Sewer Gas.	53
Urticaria	509		- Ventilation	53
Salpingitis, Synopsis	444		Sexual Impotency, Saw Palmetto in	31
Salt Water in Pachydermia Laryngis	393		Shower Baths in Cardiac Asthenia	31
- Sterilized in Uræmia .	496		Silver Nitrate for Bubo .	
Saluminum	46		- in Friedreich's Disease	28
		•		

Y	AGE		IAGE
Silver Nitrate in Ophthalmic Thera-		Starch Injection for Croup	181
peutics	26 <b>1</b>	Static Electricity	56, <b>6</b> 1
in Ulcus Critis	491	Stem Pessary, the Use of	454
— — in Ulcus Cruiis — — Ulceiation of Anus	128	Stenosis, Carpaine in	16
Simulo in Epilepsy		— of Larnyx	
	244		354
Sinus-Phlebitis, Otitic	446	Sterility, Lawsonia Inermis for	34
Sinusoidal Current	57	Sterilized Salt Water in Uræmia	496
Sitz-Baths in Sclerodermia	446	Stimulant, Crotin Oil as	18
Skin, Pigmentation of, Synopsis	426	Sumulants in Angina	116
Small Pox Epidem cs	514	Stomach, Catairh of	458
Synopsis	449	- Diet in Cancer of	460
Snol a Rita Symonese		in Dilatation of	459
Snake Bite, Synopsis Scap, Fel's Germicide	449	Disagran of	
Scap, Fer's Germicide	575	— — Diseases of — — Ulcer of	455
Scap, Fel's Germicide Scaps Medicated, for Acne Vulgaris 85 Soda in Enteritis	, 80	Ulcer of	459
Soda in Enteritis		- Dilatation from Adhesions around	_
- Bicarb in Urticalia	509	Pylorus	461
of, for Croup	182	<ul> <li>Diseases of, Synopsis</li> </ul>	460
Sodum Chlorate	48	- Neuroses of	460
in Cancer of Stomach	48	- Rupture of	463
— — Stomatitis	48	- Surgery of	46r
- Chloride in Pneumonia	428	- Ulceration in Chlorosis	171
- Hyposulphite in Lupus Erythema-		Stomatitis Mercurial, Belladonna in	II
tosus	367	- Sodium Chlorate in	49
- in Ophthalmic Therapeutics	261	Stone, Duration of Operation for	143
— — Yellow Fever	524	- in Bladder, Anasthesia for	143
- Menosulphate	49	Mortality from	145
- Nitiite		— — Operation at Single Sitting — — Prevalent in Australia	143
	49	Describes an Asses also	
in Anginal Affections	49	— Ureter 502	141
Cardiac Frombles	49		2, 506
- Salicylate for Headache	302	- Sounding for	141
for Piuritus Vulvæ	437	— Statistics of	141
— — in Angina	116	Strangulated Hernia	318
Epididy mitis	242	Strangulation of Testicle	476
- Sulphate Waters in Dyspepsia	193	Stricture of Ulethra	527
Soluble Hypoderms		Strontium Bromide in Enteritis	
	575		239
Solution for Cracked Nipples	118	Strophanthus in Heart Disease	312
Solvent over Uric Acid, Tetra-Ethyl	_	Strychnine for Collapse in Uræmia	497
of Ammonium as	6	- ın Alcoholism	98
Somatose in Dyspepsia	196	— — Angio-Neurosis	125
Sounding for Stone	IAI	— — Cardiac Asthenia	311
- of Ureter	500	- Delu ium Tremens	99
Sozoiodolate of Meicury in Ulcus	500	— — Dyspepsia	193
Cruris	40.4	— — Eczema	224
	494	Enuresis	
Sparteine	49		241
- as a Renal Stimulant	50	Locomotor Ataxy	366
— — — Cardiac Stimulant	50	- Ophthalmic Therapeutics	261
- ın Erysipelas	249	— — Pneumonia	428
Spasm of Spinal Accessory	449	Styptic Vainish, Antiseptic	578
Spasmodic Croup, Synopsis	182	Sublimate Injections for Cancer	164
- Torticollis	480	- m Rhinoscleroma	443
Spasmotin		- Solution in Gonorheal Endo-	773
Spanism Simil Folding	50 568	metritis	238
Speculum, Sims' Folding		Calantanhanta	
Spermatorrhœa, Synopsis	449	— in Galactophoritis — Leprosy	147
Sphacelotoxin	50	Leprosy	359
Sphenoidal Sinuses, Empyema of	236	Subphrenic Abscess	462
Spinal Accessory, Spasm of	494	Sub-umbilical Space, Investigation of	80
- Curvature in Chlorosis	171	Sulphanilic Acid	51
- Disease, Lawsonia Inermis in	34	- in Acute Catarrhal Rhinitis	51
— Disease, Lawsonia Inermis in Spine, the Typhoid	450	Coryza	51
Spine, the Typhold		— — Aural Catarrh	51
Spleen, Abscess of	453	Aurai Catairii	
- Axial, Rotation of	452	— — Laryngitis — — Otitis Media	5 x
- Surgery of	45I	Otitis Media	5 T
Splenectomy	45I	Sulphate of Copper in Gingivitis	473
Sporadic Cretinism, Thyroid Treatment	321	— — Iron in Dyspepsia	193
Sprain, Synopsis	453	in Ulcer of Stomach	459
Spray Inhalations for Antisepsis of Air	431	- Magnesia in Anchylostomiasis	114
	70	Zinc in Cancer	164
Passages	168		~~4
Spraying for Carbuncles Staining Urethral Injections for Gleet		Sulph-Ichthyolate of Ammonia in	
Staining Urethral Injections for Gleet	300	Vulvitis	510

P	LGL		ъ.	۱ ) L
Sulphonal in Chinacteric Insanity	334 İ	Tetanus, Synopsis		177
- in Fezema	224	Letra-Ethyl of Ammonium		6
Pruntus	435	Teucim in Tuberculosis		51
— — Lyphus	490	Thaden's Dressing for Ulcus Cruis		400
Sulpho-phenate of Sodium for Prungo	421	Theobiomine		52
Sulphur in Eczema Schorrhadum	228	- in Mitral Disease		52
- in Guiner Worm Discree	274	Therapeutic Progress		3
- Hyperidrosis		Therapeutics		,
- Surgery	320 480	Thioform for Ulcus Cruris		40
	100	Tholor in Eczema		414
Sulphuric Acid in Cincer	164	Thiosinanin in Lupus Vilguis	.1	30
Sumbul	5x	Throat, Carcinoma of, Potassium Iodio	lie	
- as a Nerve Pome .	51	Tot Contact Contact		477
- for Insomnia	51	Thuja Occidentalis in Cystitis	52,	
- in Hysteria	5 <sup>1</sup>	Thymic Acid in Rhinoscleronia		11
- Nervous Dyspepsia .	5 I	Thymol in Anchylostonii isis		11
Neuralgia	51 '	— in Diarrhola		ILL
Nemasthem	51 ,	Pruntus		435
Supportive Inflammation of Middle	1	Lotion in Urticaria		50
Fat 190, 205,	207	Thyroid Elixir		575
Suprapubic Prostatectomy	4,0	- Extract in Psorrisis		4 31
Surgery of Infantile Parilysis	398	- in Lupus Vulguis		370
- of kichey	343 1	- Lie ument in Sporadie Cietmism	221.	22
Inc	301	Tu Dolomeux, Croton Oil in	J 17	1.
Pincreas	39 1	Tinca Trichophytina		477
- Stomach	101	- Anti-Pirasiticides for		47
- the Gall Bladder		- Chrysarolin in		
the Othi Diminet	90	- Cieisote in		177
— — Spleen — — United S	45 t			17
Comment Back Street	100	— Hot Antiseptic Solutions for		47
Surgical Pocket Knife, Aseptic	31.4	- Versicolor		47
- Stockings	373	Benzine in		17
- Treatment of Tubercle	490	— — Chiysaiobin in		17
Suspensory Bandage	570	Iodine for		17
Swedish Movements in Cardiac Astheni i		Losophan in	478,	
Sycosis, Synopsis	466	I mnitus, Aurium		210
Syphilis, Cupri Sulphas in	20	loc Nail, Ingrowing		17
Syphilitic Affections of Month and		Tolu, Syrup of, in Bronchitis		14
Nose, Treated with Ethyl Iodide	28	Tolysol		5.
- Disease of Labitinin	200	Tongue, Cancer of		It)
- Ulcer trions of Mouth, Bell idonna in	11	Tongue, Cancer of Tonsils, Diseases of		17
Syringe and Irrigation, the Zula	57 I	Synopsis		47
Syringes, Anti-toxin	55 >	- Tuberculous, Injections of Scrum !	O	47
- Hypodermic	551	(raly mo-( intery for		47
		Phenne Acid in		47
TAVIOR, J. MADISON, Philadelp 178, 240, 200, 37x, 522, Taylor, J W 511, Thompson, W Gili New York, 103	ha.	Torsion for Curuncle of Unithia		50
178, 240, 260, 371, 522, Taylor,	ohn	Torticollis, Cautery in		13
W 511. Phomoson, W Gali	11.111.	- Commun in		43
New York, Inc	,	- (raleanism in		1,
Tale in Hyperidiosis	321	- Nerve Stretching in .		4
Talipes Calcineus, Operative Treat-	,	- Sp ismodic		4
ment for	411	- Counter Instation for		4.
Tampon, Use of, for Abortion	ξ.	Toxis, a Fictor in Angio-Nemosis		1
Tampon, Osc of the Host exte	`+7	Li cheotomy in Croup		î8
Tamporang for Fpistaxis Tamin for Epistaxis				51/
as Westerland	'47	I ming Institutions		
- in Hyperidiosis	320	Traps for Drains		53
- Ontment for Pezema - Solution in Viricocele	233	Liaumatic Intra-peritoneal Harme	/1	8
The Date of Damester	2 XO	rhige	•	
Tat Biths in Dermatitis .	x U ş	Lin hlor wette Acid		5
- in Eczenii	224	- as i (interant		5
Winc of Tattoo Marks removed by Glycerole of Paraul	578	m Epistaxis	1-17	24
Tittoo Marks removed by Onsceroic		Ozana		•
CALL REPORTS	407	Tukiesol		5
Tex for Dyspepties	4to	Trion d. in Alcoholism		1)
1 ablords	58.	Truss, Hollow Back .		57
Leeth	467	Tuberck, Surgery of		40
Lestude, Strongulation of	476	Lubricular Laryngitis, Myriboline	111	3
Testicular Land for Nemasthenia	38r	- Pentonitis		41
- June for Atony of Bludder .	133	Joints, Surgery of		48
Tablets	579	Puberculin in Lupus Vulgaris		36

	PAGE		р	AGE
Tuberculosis, Bier's Remedy for	487	Uræmia, Digatalis in		495
— Diagnosis of	484	- Ether in Collapse of		497
- Lainygeal, Insufflations for	70	<ul> <li>Intravenous Saline Solution for</li> </ul>		497
- Miliary, Aurum Metallicum in	10	- Iodine for Nausea of		497
- of Bladder	140	- Lime Water in		497
- Larynx, Ethyl Iodide for	28	- Nitro-glycerine in		497
- Synopsis .	487	— Opium in		496
- Teucrin in	51	- Oxygen and Nitrogen in		497
Tumour, Cerebral Tumours, Abdominal	488   81	Pilocarpine in     Piperazin for		496
— of Bladder	141	— Potash Salts in		498
Turpeth Mineral, in Croup	182	- Sterilized Salt Water in		495 496
Typhlitis	488	- Strychine in Collapse of		497
- Actual Cautery in	489	- Synopsis		498
- Belladonna Ointment in	489	Venesection in		497
- Benzol-Naphthol m	489	- Veratrum Vilide for		497
— Croton Oil in	488	- Vichy Water for		497
- Ointment for	488	Oreter, Suture of		505
- Purge for	488	- Implantation into Bladder		505
- Warm Bath in	488	- Palpation of		500
Typhoid, Digitoxin in	21	- Sounding of		500
— Epidemic	547	— Stone in	502,	
— Guaracol in	31	Ureters, Catheterization of  — Occlusion of	499,	
- Lactophenin in	33 450	Surgery of	•	505 498
— Spine — Synopsis	489	Uiethan for Uræmic Convulsions		498
Typhus	489	Urethra, Caruncle of		567
- Enemata in	489	- Photography of		507
- Hydrochloric Acid and Gentian in	489	- Stricture of		507
Oleate of Mercury in	489	Uric Acid, Tetra-ethyl of Ammonius	n, a	-
- Oleum Terebinthinæ in	489	Solvent for		6
- Sulphonal in	490	Urinal, Bed		557
— Synopsis	490	Urine in Enteric Fever		262
U LCER, Gastric, Bichromate of		- Excretion promoted by Carpaine	•	16
LCER, Gastric, Bichromate of		Urticaila		508
	73	Alkalies in     Atropine Sulphate in		509
- of Stomach, Diet in - in Chlorosis	459 171	- Bath for		509 509
— — Sulphate of Iron for	459	- Belladonna Tincture for		509
Sulphate of Magnesia in	459	- Bicarbonate of Soda in		509
Ulcerations of Mouth, Syphilitic, Bella-	437	- Ergotine in		509
donna in	TT	- Hypnotics in		509
donna in Ulcers Diaphtherin for	21	- Lotions for		509
- Duodenai	340	- Ointment for		509
- Indolent, the Nucleins for	38	- Powders for		509
- Pepsin in	4I	- Quinine Disulphate for		509
Ulcus Cruris	490	- Salol in		509
- Antiseptic Powder for	492	- Salves for		509
- Chiorine Gas for	494	Synopsis     Thymol Lotion for		509
- Chlorine Gas for - Electricity for - Europhen for	<b>4</b> 93 493	- Vichy Water in		509
— — Iodoform for	49I	- Vichy Water in Uterine Chloasma, Synopsis		169
Massage for	493	- Irrigation in Abortion		83
<ul> <li>— Massage for</li> <li>— Rubber Bandage for</li> </ul>	490	- Irrigation in Abortion - Myoma .		375
Silver Nitrate for	49r	— Therapeutics		510
<ul> <li>— Sozoiodolate of Merculy for</li> </ul>	494	— — Synopsis		511
<ul> <li>— Synopsis</li> <li>— Thaden's Dressing for</li> </ul>	494	Uterus and Vagina, Doubling of		511
- Thaden's Dressing for	490	— Anteflexion of		454
- Thioform for	493	Vanderpoel, Waldron	TO 7	NT ~~~
Unna's Treatment for	490	Varia 4 88	10, 1	LICW
- Vigo's Plaster for	490	V York, p 88 Vaccination Officers		616
— Molle, Synopsis Unna's Treatment for Ulcus Cruris	490 490	Vaginal Hysterectomy for Myoma		375
Uræmia	495	Vaginitis, Synopsis		516
- Amyl Nitrite in	497	Vaginodynia, Synopsis		516
- Brandy for Nausea of	497	Valerian for Pruritus Vulvæ		437
- Chloral in 49	6, 497	- ın Alcoholism		98
- Coca in Collapse of	497	Eczema		224
<ul> <li>Convulsions, Urethan for</li> </ul>	498	Valerianate of Amyl .		53

p	ME !	,	1CF
Valenanate of Anivl in Alcoholic De-		Vulcanized Rubber Diessing in Fezema	220
lumin	54	Vulvitis, Sulph-Ichthyolate of Ammon-	
in Angina Pectoris	54	13.10	510
Hepatic Colic	54	Vulvo-Vaginitis in Children	520
Hysteria	54	- Permanganate of Potassium for	521
Vapor Cubeba in Chronic Layingitis	354	2 drinking times of 2 other main for	341
- Sylvestris in Chronic Laryngitis	354	WWWATERING TO T NEW YORK	
Varicocele	510	WATKINS, R L, New York, 484 Warm Baths in Lyphlitis	
			403
- Resection for	516	Warts 521,	
- Synopsis	517	Water and Glyceine for Pruritus	435
- Finnin Solution for	516	Weil's Disease	52 t
Vancose Veins, Synopsis	513	Weishaden Water for Gastritis of	
Vanola	517	Alcoholism	97
- Boric Acid for	517	Whisky	503
- Corrosive Sublimate for	517	Whitlow, Synopsis	522
- Fxclusion of Daylight for	517	Whooping Cough	5- *
- Inunctions for	517	I thyl lod de in	. 3
- Mercurial Baths to	517	Nurite of Amyl in	523
Vascular Changes in Organic Adriania-	į	Quimne in	522
แนา	10	Wilson's Silve for Eczema	22,
Vaseline for Dermatitis	1.4	Wine of Beef Peptones	50;
- Injections for Selecosis of Middle		Worms, Synopsis	52,
L ir	213	Wound Retire tois	570
- for Printitus Am	121	Wounds, Lawsonia Incrmis to	
Vasogene	39	— of Abdomen	73
Verel's Method in Lupus Vulgaris	305	Wrist Drop	404
Vems Varicose, Synopsis	518	Writing in Schools	256
Venesection in Infantile Convulsions	179	Withing in Schools	250
- in Pneumonia	420		
Uramia	497	TANTHOMA	523
Ventral Heima from Laparotomy	720	A — Electrolysis in	523
Veratium Viride in Uramia		- Phosphorus in	523
	497		
Vermiform Appendix, Palpation of	134	YEAST for Furunculosis	200
Vertuca, Synopsis 518,		Y Vellow Fexus	52,
Vertigo	211	- Alcohol and Cinchona Bark in	5'4
Am il	531	Benzo ite of Sodium in	574
Synopsis	513	- Bitartiate of Potassium in	524
Vesical Atony of Bladder	1 ,0	Calomel in	5'3
- Fistulæ following Pelvic Supplication		Castor in	521
- Herma	-19	Musk in	524
Jesiculitis, Seminal	513 ,	- Naja Tripudians in	
Viburnum Prunifolium in Dysmenoi-	1	- Salicylic Acid in	377
thea	192	- Salicylete of Potassium in	5-1
Vichy Water in Nausea of Ulamia	497	of Sodium in	524
- in Uniticaria	503	— Wash for Pruritus Vulve	524
Vigo's Plaster for Ulcus Cruris	440	- wash for Pruritus vilivie	4,8
Vinum Antimoni de in Eczema	224		
— in Piaritus	430	ZINC Chloride for Calcic Inflam- mation of Gums	
Voice, Synopsys	500	unation of Gums	475
Vomiting	520	in Chronic Laryngitis	353
- Nitro-Glycerin in	520	Oxide Plaster for Eczema	223
- Synopsis	520	— Sulphate in Cancei	164
	-	**	

## 24, CHANCERY LANE, E.C.

THE LONDON BRANCH OF



JOHN GIBSON, M.A. (CAMB.),

AND

G. LOLY, B.A. (LOND),

(Both First-Class Honour Men),

Assisted by a Large Staff of Specialists,

## Prepare Privately,

in Class, and by Post,

FOR

London Matriculation | Preliminary Medical Preliminary Scientific | Preliminary Law And all Aublic Graminations.

Over 1500 Successes, including many High Honours, Medical Scholarships, &c

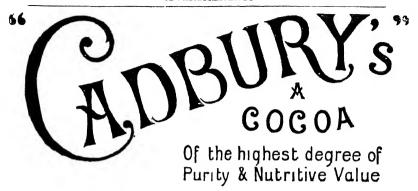
## GOOD LABORATORY for CHEMISTRY and PHYSICS.

Books recommended GRATIS.

\*\*\*\* Gibson's "Guides," with Examination Questions and Solutions, appear after each examination

RESIDENT PUPILS received at BROMLEY, KENT.

NB—"THE STATE CORRESPONDENT AND HIGHER EXAMINATION JOURNAL" is issued Monthly, Price, 2d , Post Free,  $2\frac{1}{2}$ d , Annual Subscription (Post Paid), 2/6.



"We have examined the samples brought under our notice, and find that they are genuine, and that the Cocoa is just what it is declared to be by Cadbury Brothers"—Lancet.

"Cadbury's Cocoa contains, in a condensed and increased form, all the nourishing properties of the Cocoa bean — The Analyst

"A perfectly pure Cocoa, of the highest quality . . . The name 'Cadbury' on any packet is a guarantee of purity."—Medical Annual

"Cadbury's Cocoa has in a remarkable degree those natural elements of sustenance which give the system endurance and hardthood, building up muscle and bodily vigour, with a steady action that renders it a most acceptable and reliable beverage."—

Health

"Of absolute purity and freedom from alkalı, Cadbury's Cocoa may be prescribed without hesitation, with the certainty of obtaining uniform and gratifying results.... An invaluable addition to our dietetic resources in the treatment of all forms of digestive disorders."—Braithwaite's Retrospect of Medicine.

"At once pure, wholesome, and cheap, and with no superior in the market"—Hygiene.

# "CADBURY's"

"The typical Cocoa of English Manufacture—Absolutely Pure."

-The Analust.

# List of Illustrations.

PLAT	ΓES			P	AGF
PLATE I Angio-Neurosis, six Views	· -	-	_		118
PLATES II, III.—Children at School	l, showing light	ght in Be	st		
and Bad	positions for	work	_	251,	252
PLATES IV., V -School Children se	ated in Wron	g position		255,	
PLATES VI, VII, VIII - Ditto		position			
PLATE IX —Case of Congenital Dislo	cation of Hea	d of Femi	ır	•	278
PLATES X, XI —Friedreich's Disease	e, two cases	_	-	285,	
PLATES XII, XIII, XIV — Thyroid	Treatment of	Cretins	325.	32Ğ,	_
PLATES XV, XVI —Stenosis of the	Larvnx	_		355,	-
PLATE XVII —Pachydermia Laryngi	s -	_	-	555.	392
PLATES XVIII,—XXIII —Infantile I	Paralysis, twei	aty-four v	1ews	400	-410
PLATE XXIV —Microscopical Views	of Blood in T	uberculos:	1\$	•	484
Figs. WOOD ENG	GRAVINGS			P	AGE
I —Dr Dundas Grant's Specul	um -	-	-		221
2 —Electric Lamp for Mouth U		-	_		230
3 —Irrigating Cannula for ditto		-	_		230
4 —Tongue Depressor with La	mp -	-	-		232
5 —Diagram of Nasal Structure	s -	-	-		233
6 —Lichtwitz's Trochar and Ca	annula	-	-		233
7 -Antral Tube and Irrigating		-	_		234
8 —Curtis's Nasal Trephine	-	-	-		236
9-13—Improved Leg Splints	-	_	-	277,	
14, 15 -Dr Murphy's Method of C	holecystenter	ostomy	-	296,	
16 —Gall Stone, 14-0z weight	-		-	•	298
17-19Method of Suturing for He	rnıa -	_	-	314,	
20-27 - Diagrams illustrating Intest		-	-	338-	
28, 29.—Anterior Sections of Uterus		-	-	375,	
30 —Diagram showing Pancreati		_	-	0,0	397
31 —Infantile Paralysis -	-	_	-		399
32 —Paralytic Talipes Equinus	-	-	-		401
33 - Splints for Wrist Drop	-	-	-		403
34 —Flail Knee and Ankle -	-	_	-		409
35 —Gingival Border and Subja	cent parts	-	-		468
36—Tooth with Calcic Inflamm	ation-	_	_		469
37. 38 - Teeth with Scalers -	-	-	-		474
39. 40.—Diagram of Tuberculous Jo	nnts -	-	-		481
41.—Action of Sulphur on Gang	grenous Toes	-	-		483
42 —Fenger's Plan of Operating	for Ureteral	Stricture	-		499
43 - 48.—Suture of Ureters -	-	_	-	501-	504
49 - 52 —Photographs of Living Ures	thra -	-	-		508
53 —Double Uterus of Sheep	-	-	-		512
54, 55 —Double Uterus -	-	-	-	514.	515
56 —Drs Arthur and Illingworth	, System of	Sewerage	-		533
57 —" Caink" System of Ventila	ating Sewers	-	-		534
58. 50—Interceptor Sewage Traps	-	-	-		536
60-65 —Improved Drain Pipes and	Connections	-	-	537-	-539
66 - 68 —Patent Gully Traps -	-	-	-	539,	540
69-71 -Patent Infection Safeguard	-	-	-		542
72 —Disinfecting Machine -	-	-	-		543

CHICAGO EXHIBITION—Highest Awards in Two Classes.

And EIGHTEEN other GOLD, SILVER, & BRONZE MEDALS.

# W<sup>M.</sup> WOOLLAMS & CO.,

ORIGINAL MAKERS OF

# ARTISTIC

# WALL PAPERS,

GUARANTEED



## Free from Arsenic.

Correspondence invited on cases of poisoning from Arsenical Wall Paper

Sole Address .-

110, HIGH STREET (Near Manchester Square), LONDON, W.

THE LATEST IMPROVEMENT IN TRUSSES.

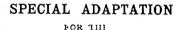
WM. COLES & CO.

Inventors and Patentees

Spiral Spring Truss,







SUPPORT OF FLOATING KIDNEY.

225, PICCADILLY, LONDON, W.

(Late 3, Charing Cross). Two Doors from "The Criterion" PARTICULARS, &c., GRATIS BY POST.

## INDEX TO ADVERTISERS.

T 0777 7772	PAGE		PAGE
ASYLUMS.		HOSPITALS AND MEDICA	IL.
Abbey Green, Jedburgh .	698	SCHOOLS, &c.	
Bailbrook House, Bath .	699	Gordon Hospital for Fistula	685
Bainwood House, Gloucester	702	Guy's Hospital Medical School	682
Bethlehem Royal Hospital	701	Hospital for Consumption,	
Bishopstone House, Bedford	700	Brompton .	686
Boleatton Park, Baschurch,		London Homœopathic Hospital	687
Salop	697	London School of Medicine	•
Course Lodge, Rich-Hill, Co		for Women	685
Armagh .	706	Mason College, Birmingham	68 i
Daliymple Home, Rickmans-		Middlesex Hosp Med School	682
worth, Herts	702	Richmond, Whitworth & Hard-	
Earlswood Asylum, Redhill	697	wicke Hospitals, Dublin	684
Fiddington House, ni Devizes	70I	Rotunda Hospital, Dublin	683
Flower House, Catford, S E	703	Royal College of Surgeons,	-
Grove, The, Jersey	695	Edinburgh	678
Halliford House, Sunbury	704	Royal Southern Hospital,	•
Haydock Lodge, Newton-le-		Liverpool	691
Willows, Lancs	703	Royal (Dick) Veterinary Col-	_
Highfield and Hampstead,		lege, Edinburgh .	68 I
Drumcondra	699	St Bartholomew's Hospital	
Kingsdown House, Box, Wilts	700	and College	675
Lawn, The, Lincoln .	698	St John's Hospital for Skin,&c	686
Mollendo House, Edinbuigh	698	St Mark's Hospital for Fistula	68o
Northwoods House, Winter-		St Peter's Hosp for Stone, &c	683
bourne, near Bristol	704	St Thomas's Hospital	676
Peckham House, Peckham, SE	685	University College, Bristol .	679
Plympton House, South Devon	7°3	University College, Liverpool	680
Shaftesbury House, Formby-		University of Aberdeen .	686
by-the-Sea, near Liverpool	696	University of Durham .	677
St George's Retreat, Burgess		University of Edinburgh .	678
Hill	698	Yorkshiie College, Leeds	684
Stretton House, Church	_	HYDRO - THERAPEUT	C
Stretton .	694	ESTABLISHMENTS.	
Warneford Asylum, Oxford .	701	Deeside, near Aberdeen	709
Wonford House, near Exeter	702	Dunblane, Philp's	708
HOMES.		Fergusson's Dr, Malvern	711
Ancaster House, Richmond		Hammam, or Turkish Bath	708
(Training)	707	Royal York Baths, N W	710
Bearsted House, Kent (Train-		Scarborough Hydro	, 709
ng)	705	St Ann's Hill, Blarney	711
Brunton House (Training)	707	Smedley's Hydro , Matlock	711
Capel Lodge, Folkestone (In-	66.	Southcliffe, Bournemouth	709
ebriate)	664	Southport Sunnyside Hydro	710
Downside Lodge, Chilcompton,	706	NURSING INSTITUTIONS	2
near Bath (Training)	706 710	Hamilton Association for Pro-	
Dunmurry, Clifton (Inebriate) Grosvenor, Auckland Rd, SE	700	viding Male Nurses	691
High Shot House, Twicken-	/55	Hanover Institute for Nurses	689
ham, Middlesex (Inebriate)	704	London Association of Nurses	688
Southport, 8, Manchester Rd	704 688	Mary Wardell Convalescent	
Winchester House, Kingston	300	Home	690
Hill (Training)	705	Mildmay Nursing House	690
(	/ l		_

	AGE	Indian Medico - Chimigical	\GL
Trained Nurses' Home, Liver-	791		054
	591	JOHNSTON, W & A K	·/J4
•	-	Atlas and Maps	661
TUTORS, &c.	221	KIMPTON, HENRY	
Gibson, J	271	Essential Series	663
	590	Sterility in Men (Stoles)	6012
Van Praagh, W (Defects of	90	Lancet, The	649
	562	Laryngology, Rhinology and	c-c
	587	03.3	656
LIFE ASSURANCE OFFICES	- 1	LEWIS, H K.	
	542	Anasthetics (Buston) Anatomy of Nasal Cavity (Onodi)	
	54I	Aseptic Treatment of Wounds	٠,,
	036	(Schimmelbusch)	645
	030	Cancer of the Uterus (Williams) Cases of Poisoning (Murrell)	645
	544	Chuts, Nursing and Temperature	043
	643	Choren (Osler)	045
	511	Discises of the Ear (Gruber) of the Fir, etc (Burnett)	045
		— of the Eye (Swinzy)	045
MEDICAL TRANSFER		- of the Lungs (Powell,	045
AGENCIES, &c.	1	— of the Nose & Throat (Hall — of the Skin (Crocker)	645
	700	of Women (Skene)	645
	1612	- of Women Lewers)	h45
Thomas, C B C	74	Dyspepsiz of Phihis (Feigurk)	045
PUBLISHERS.		Framination of Unite Jones)	645
Burmingham Medical Review (	553	Isxtra Pharmacoperii	
Bristol Medico - Chii urgical		(Martind de & Westrott) Hygiene (Parkes)	663 645
]ournal 6	555	Inchricty (Kerr)	1145
BAILLILRE, TINDALL & COX.		Infectious Diseases (Parkes)	h45
Cancer and Ulcerations (Allingham)	654	Masso Therapeutics Murrelli Medical Electricity (Stravenson &	**45
Colotomy (Allingham) Derangements of the Knee Joint	664	Jones)	645
	664	- Microscopy (Wethered)	645
Diseases of Rectum (Allingham)	664	- Nursing . (Anderson) - Vocabulary (Lewis	045
Danielsson & Co., Clinical Chart	746	Medicine (Roberts)	645
GRIFFIN, CHAS & CO, LIM		Medicine (Carter)	045
Anatomy (Maralister)	658	Midwifery , (Lusk) Morbid Histology (Hovee)	145
Asylum Management (Mercier)	658	Nervous and Mental Diseases (Gray)	645
Brain and Spinal Cord (Horsley) Gout (Duckworth)	658 658	Neuroses (Goodheart)	645
Diagnosis (Jaksch & Cagney)	658	Ophthalmology	045
Diseases of Childhood (Donkin) Diseases of Eye (Meyer)	658	Spine, Curvature of (Roth	1148
Diseases of Eye (Meyer)  — of Skin (Anderson)	658	Syphias (fill and Cooper,	045
Forense Medicine (Mann)	658	Therapeutics (Ringer) Therapeutics, Local (Allen)	ñ45 1145
Heart Diseases of (Sansom) Lung Diseases (Clark)	658	LIVINGSIONE, E & S	77
Medicine (Bury)	658	Anatomy	643
Mental Diseases (Lewis)	658	Botany (Johnstone)	143
Nervous Organs (Obersteiner) Neuritis Peripheral (Ross & Bury)	658 658	Brain and Spinal Cord (Whitaker Chemistry	648
Physiology Landois & Stirling)	658	Fdm Med School Calendar	fie R
Poisons (Blyth)	658	Exam of the Urme Husband)	748 748 748
Railway Injuries (Page) Rheumatism (Garrod)	658	Forensic Medicine Husbands Gynæcology	1148
Ruptures Macready)	658	Materia Medica .	1148
Surgery of Kidneys (Phornton)	658	Medicine	648
- of Spinal Cord (Thorburn)	658	Nerves (Hughes)	648

LIVINGSTONE, E & S, continued	Diseases of the Spine (Swann) 671
Pathology (Whitaker) 648	Diseases of the Spine (Swann) 671  of Women (Garrigins) 671
Physiology 648	Dissections (Brodie) 670
Pocket Prescriber (Husband) 648	Elementary Bandaging (Pye) 656
Posological Lables (Craig) 648	Eruptive Fevers (Moore) 669
Puberty & Change of Life (Webster) 648	Essential Series 669
Public Health 648	Golden Rules of Surgical Practice 665 Health Resoits of Europe 668
Yellow Fever (Martin) 648 Zoology (Johnstone) 648	Health Resorts of Europe 668 Hypnotic Suggestion (Kingsbury) 667
	Leprosy (Hansen & Looft) 748
Longmans, Green & Co	Massage and Electricity (Dowse) 667
Hernia (Bennett) 66t	Medical Bookkeeping 672
Varicocele (Bennett) 661 Varicose Veins (Bennett) 661	- Formulary (Powell) 670
	— Terms (Hoblyn) 670 Mental Diseases (Shaw) 667
MACMILLAN & CO	Mental Diseases (Shaw) 667 Miners' Nystagmus (Snell) 665
Disorders of Digestion (Brunton) 660	Myyordema Cretunism etc. (Blake) 666
Modern Therapeutics (Brunton) 600 Pharmacology, &c (Brunton) 660	Nuising in Eye Diseases (Jeaffreson) 666
7 7 1 1 7 7 -	Obstetric Nursing (Madden) 608
Medical Magazine, The 657	Ophthalmological Prisms (Maddov) 665
Medical Press and Circular 651	Physician's and Surgeon's Register 672 Pocket Charts (Simpson) 671
Medical Times and Hospital	Pocket Charts (Simpson) 671  — Pharmacy (Aulde) 669
Gazette 652	Prescription Books (Wright's) 671
	Primer of the Art of Massage (Dowse) 667
PENTLAND, YOUNG J	Ptomaines (Farquharson) 668
Abdominal Surgery (Keith) 646  — First Aid (Lawless) 646	Rheumatism (Wilde) 667 Surgical Handicraft (Pye) 666
— First Aid (Lawless) 646 Diseases of the Eye (Berry) 646	Surgical Handicraft (Pye) 666 Femperature and Diet Charts 672
———— Skin (Jamieson) 646	Tillman's Principles of Surgery 671
- Throat, etc (McBiide) 646	Transactions Royal Academy Medi-
Edinburgh Hospital Reports 646	cine, Ireland 670
Medicine (Ostler) 646	Urinary Surgery (Fenwick) 665, 748 Urine Testing Manual of (Scott) 669 Visiting List (New) 672
Pathology and Bacteriology (Woodhead) 646	Urine Testing Manual of (Scott) 669 Visiting List (New) 672
Skin Diseases, Atlas (Crocker) 646	Water Cure (Doudney) 668
Wounds (Cheyne) 646	Workhouse and Its Medical Officer 667
Quarterly Medical Journal 650	ANTISEPTIC DRESSINGS.
SCIENTIFIC PRESS, LIMITED	
Annual of Hospitals and Charities	Liverpool Lint Co 719
(Burdett) 659	
H indhook of Midwifery (H inliain) 659	MANUFACTURING CHEMISTS,
Hospitals and Asylums (Burdett) 659 Hospital The 659	&c.
Medical History (Withington) 659	Aller O TTemberran
Science Progress 659	Allen & Hanburys 111 to v111
WATT, A P & SON	and Inside Back Cover
Diseases of Nose (MacDonald) 660	Angier Chemical Co . 743
WHITTAKER & CO	Blake, Sandford & Blake 733
Dissections Illustrated (Brodie) 647	Battley & Watts xxx
Hoblyn's Dictionary (Price) 647	Burroughs, Wellcome & Co x1-xx
WRIGHT, J & Co	Cox, A H & Co . 735
Acne, Lichen, & Prurigo (Robinson) 670	Ferris & Co , Bristol, lana, 732-751
Baby, Our (Hewer) 668	and Inside Back Covers
Baldness (Robinson) 670	Fletcher, Fletcher & Co 736
Beths and Bathing (Farrar) 668	Kuhn, B 734
Brain and Spinal Cord (Drummond) 670 Bright's Disease (Saundby) 666	Lorimer & Co . 738-740
Bright's Disease (Saundby) 666 Churs, Temperature and Diet 671	Mackey, Mackey & Co
(hronic Dise ises of the Heart (Little) 671	Mackey, Wackey & Co
Clubs, Athletic and Recreative (Dene) 663	Newbery, F & Sons 727
Deformities of Children (Pye) 666	Parke, Davis & Co 730
Diabetes (Saundby) 667 Discuss of Inebriety 668	Preston, J 722
TAISE INC. OF THEOFIELY 000	
Thereas of the Unner Respiratory	Oppenheimer, Son & Co, Lim
Diseases of the Upper Respiratory Tract (Williams) 665	Oppenheimer, Son & Co, Lim

1 AU-E	1 1.1
Richardson, J & Co 726 Schering's Modern Therapeu-	SURGICAL INSTRUMENTS AND APPLIANCES.
tics 729	Ameld Come
Sumner, R & Co Inside Front Cover	Arnold & Sons
Symes & Co	Burroughs, Wellcome & Co
Warnek Bros 673	xi to xx
Willows, Francis & Butler 731	Cocking, J T, Poro-plastic
Woolley, Jas Sons & Co . 733	Jackets . 720
133	Coles, W. & Co, Trusses INN
DIETETIC ARTICLES.	Dinneford & Co, Gloves, &c 604
Anderson & Co Lactomaltine 747	"Domen" Belts Co. 716, 717
	Down Bros . 711
Armbrecht, Nelson & Co . 742	Down Bros . 714 Evans & Wormull 723
Benger's Food 745	
Blackmore & Co, Malted Coffee 693	
Bonthion, John, Diabetic	Feiris & Co Bristol, Nov. 732 751&
Biscuits, &c - 737	Inside Back Covers
Boviil, Lim	Haslewood, A 740
Brand & Co, Meat Essences NN	Haywood, J. H. 745
Bruster, () & Co 745	Huist, A & Co, Electricians 718
Burrow, W and J. Mineral	Krohne & Sesemann lyxix
Waters	King, Mendham & Co.,
Cadbury Bros Cocoa Ixxii	Electricians 712
Cantrell & Cochrane	Lahmann Agency, Cotton Wool
"Club Soda" 11	Underclothing
	Liverpool Lint Co , Dressings 719
Davis, R , Aerated Waters 741	Mayer & Meltzer n
Frame Food Co , Limited 744	
Fry, J S & Sons, Cocoas	Reynolds & Branson . 728
Inside Front Cover	Statham, H & Co., Bandages 723
Horhek's Malted Milk INN .	Stubbs, Jas , Limbs . 713
Johannis Co., Lim . XXXIV	Sumner, R & Co
King's Cooked Oatmeal . 747	Inside Front Cover
Liebig (o's Extract of Meat - xlvn i	Wright, Thos. G., Electrician 724
Lorimer's Coca Wine . 738-740	"Zula" Syringe & Irrigator 715
Maltine Manufacturing Co Num	
Marshall, Jas , Farola . 741	MISCELLANEOUS.
Nestlé, H , Foods	D-16 C- (Ph. 1)
Reid & Donald, Mineral Waters XXV	Biltor Co , The, Pipes . XXII
Scott A & R Lamtd, Oat Flour x	Bradford, T & Co, Laundry
Segar, H. & Co, Ale	Machinery
Smith C & W Cook Wine Cook	Clarkson, W., Wigs 725
Smith, S & W, Coca Wine 692	French Calf Lymph . 732
Van Abbott & Sons 744	Fry, J. S & Sons, Cocoas
Welford & Sons, Lim, Milk XXXIII	Inside Front Cover
ODMICI X MC	Hunt, H & Co , Stoves 727
OPTICIANS.	Mulliner, A., Carriages 663
Curry & Payton 721	Reading, H & J , Carriages . 722
	Renner, Dr , Calf Lymph 732
SANITARY APPLIANCES.	Scott & Ferguson, Medical
Albion Clay Co., Limited . 747	Printers
Clark, Daniel, Exors of 723	Vaccine Lymph, Association
75	for Supply of
Woollams & Co, Wall Papers Issiv	for Supply of
	White, H. Watches
Wright, Layman & Umney,	Wright, J. & Co., Medical
Soaps 750	Printers 665

#### KROMNE SESEMANN'S **&**

For the PRECISE, SYSTEMATIC, and SAFE

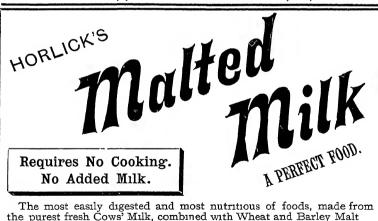
# Administration of Chloroform and kindred Anæstheties.

The Lancet, Nov 15th, 1890, says —"The fact should never be lost sight of, that many of the dangers ascribed to Chloroform and Methylene are in fact due to the imperfections of the methods used in their exhibition With K & S REGULATING INHALER a precise dilution can be effected, and the RESPIRATION INDICATOR is a precise safeguard against accidents"

ILLUSTRATED DESCRIPTION sent FREE on application to

## KROHNE & SESEMANN.

8, DUKE STREET, MANCHESTER SQUARE, W, and 241, WHITECHAPEL ROAD, E, LONDON.



the purest fresh Cows' Milk, combined with Wheat and Barley Malt

MAKES

FLESH BONE. BRAIN

INFANTS For { INVALIDS. CONVALESCENTS.

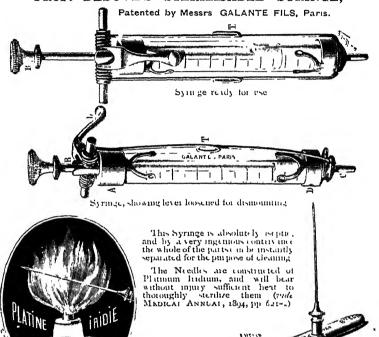
Sample, free, on application—39, SNOW HILL. E.C.

# ASEPTIC SYRINGES

FOR INJECTING

## DIPHTHERIA ANTITOXIN.

The Instrument principally employed in France for this purpose is PROF. DEBOVE'S STERILISABLE SYRINGE.



Professor Del ove's Platinum-Indium Needle

Metal Protector for Needle

Prices: 2c.c., 4c.c. or 8c.c., 25/- ea.; 10c.c., 15c.c. or 20c.c., 27/6 ea.

The Patentees have appointed

# FERRIS & COMPANY, BRISTOL,

for the Sale of these Syringes in the United Kingdom, and the original Syringes manufactured by Messis. Galanie Fils can only be obtained from them.

## THE MEDICAL ANNUAL.

### PART I—THERAPEUTICS.

## The Dictionary of New Remedies,

AND REVIEW OF THERAPEUTIC PROGRESS FOR 1894

"OF *irrational* Therapeutics we are at length free" This is the hopeful pronouncement made by Dr P H Pye-Smith in an address on Rational Therapeutics delivered before the Hunterian Society of London "By mational therapeutics," the author means "curing, or attempting to cure by magic, by the method of sympathy, by the system of signature, by swallowing prescriptions, by hypnotism, by pads of buter herbs laid on the stomach, by wearing mert guidles round the body, or by travelling long distances in order to bathe in warm water or to drink solutions of common salt."

When the history of the present era of medicine comes to be written, it may be suggested that Di Pye-Smith need not have gone back to the age of mystery and of supernaturalism to have discovered instances of mationalism in the apeutics. The docture of signatures belongs to a comparatively modern period of medical history, and was held not less strongly, nor asserted less dogmatically than any other theory that finds general acceptance at the present moment According to this doctrine, the use of any heib for the cure of disease, which neither in its leaf, flower, nor root bore resemblance to the organ of the human body for the cure of which it was administered, belonged to "mational therapeutics" There are many common herbs which bore a great reputation in the cure of disease, but which were rejected from the Pharmacopoua because they did not fit themselves into a place in this particular theory, and it is curious that although the theory has been forgotten, these rejected medicaments have never been restored to their place in medicine, although their reputation has been kept alive in folk-loie The irrational method of therapeutics of today may be considered most rational in the next decade, while many of these methods which the author quotes as illustrations of rational therapeutics may be set aside with a sheer by some future Hunterian lecturer. Thus, "hypnotic suggestion" has occupied, and still occupies the attention of physicians who are entitled to respect, and whether the method will obtain a definite place in theiapeutics of not is one which it is perhaps too early to decide. "The travelling of long distances in order to bathe in warm water, or to drink solutions of common salt," may be irrational to the mind of the author is speaking of a form of treatment which had endured for centuries before Hippocrates was born, and which, through all the changes of view which have taken place among the professors of the healing art, has continued, and still continues in greater popularity than at any other period in medical history. Time, it has been proved scientifically that the mineral water is not absorbed by the skin during the bath, and therefore the water can do no more good than ordinary water artificially heated. Theoretically Pye-Smith is right, but the simple assertion that the practice is irrational does not explain why rational men of all ages and all countries believe in the efficacy of mineral baths, or account for the cures annually effected of patients who have tried all previous methods in vain

The evidence rather points to an error in our scientific theory Lately we have had evidence that one of the speedier ways of producing the physiological effects of kreasote is by painting a watery solution of it upon the skin. It is suggested that it is the vapour which finds its way through the skin, and probably this is so. Is it not possible then, that mineral waters differ from ordinary "solutions of common salt," and that nature presents some of the mineral ingredients in a form more approaching a vapour than a solution, and that this may find its way through the skin and reach parts of the human economy which are not affected by the use of saline solutions given by the mouth, because it is the business of the liver to reject and throw them back into the system. If we suppose that this was found to be fact, it would no longer be considered irrational to use the hot springs which nature has provided throughout the world for some good purpose or another, and scientific fact and common experience would go hand in hand, instead of in the strained relations which at present exist. Dr. Pye-Smith tells us that "unfortunately the majority of sick people throughout the world are still irrational on this point."

The author also includes under "irrational medicine," attempting to cure all diseases by formulæ or theoretical general principles. "There can be no 'system' of therapeutics. All such systems, past, present, or to come, are demonstrably irrational, not because the allogathic, antipathic, or homosopathic hypotheses, the stimulating

3

Biunonian system, or the infinitesimal of Hahnemann, are wiong answers to a question on which we hope one day to find the light one, but because they are blundering answers to a question which has none"

Without prejudging the question as to the possibility of the art of therapeutics becoming a science, a legitimate objection may be taken to this specimen of a line of reasoning which prevails too commonly in the discussion of medical questions. The assertion of impossibility is not an argument which has a proper place in science, it involves the premise that existing knowledge is complete, and free from error.

By using the facts which we know, or think that we know, we can always prove demonstrably that some other thing is "impossible," but one small addition to our knowledge will destroy the whole basis of our calculation "Medicine always has been and always must be an art, not a science," is the first sentence of Dr Pye-Smith's address. The same expression of opinion has been frequently made before. We should like to interpolate the words, "in the light of our present knowledge," because if we comfortably settle down to the belief that therapeutics must always remain in a state of chaos, if we have beforehand made up our minds to regard as irrational all physicians who endeavour to bring the facts within our knowledge into a definite system, who try, however unsuccessfully, to elevate the art of medicine to a science, we are hindering rather than advancing an end, which even those who regard it as unattainable, devoutly wish for

It is a pleasure to find that Dr Pye-Smith puts in the fore-front of "Rational Medicine" the art of prophylaxis, and sanitation, and regards as "eminently rational," such remedies as "exercise and fiesh air, clothing and climate, the intelligent use of baths, of heat, of cold, and of electricity, and by regulation of the patient's food, and drink, and sleep" "I shall," he says, "speak only of the rational use of drugs, which to most patients, and I fear to a few doctors, is the whole art of medicine"

We think the author will agree with us in thinking that it is not altogether the fault of doctors and patients that the use of drugs is regarded as the whole "Art of Medicine". The whole authority of the schools has been used to inculcate this view. Persecution has been meted out to those who were the first to throw aside the resources of polypharmacy, and trust for the cure of disease to the simpler agents of heat and cold, exercise and judicious diet

Even at the present moment, no instruction is given in the medical schools as to the "intelligent use of baths" or "exercise"

We remember the surprise with which a former President of

the Royal College of Physicians regarded the question of a nuise as to whether she could continue the exercise which had been ordered for a patient by the medical attendant.—"Exercise, my good woman, why the patient cannot leave her bed"

Even in such a simple matter as "evercise" the teaching of the schools is far from complete, and consequently the daily evercise of a bed-idden patient would be set down as among the impossibilities of the future of the therapeutic art

Even in the use of "heat and cold" the teaching goes no further than the fact that cold may be used to reduce the temperature of the body, and that heat increases it. Hippocrates, after careful observation of the effect of heat and cold, suggested its use in reverse order—cold to raise the temperature of the body, and heat to reduce it. Here we have an antagonism of observed facts, the one directly the opposite of the other. But both are true. We may use either heat or cold to raise or lower the temperature of the body.

It is a part of the routine of therapeutic discussion to insist that what is paradoxical is also absuid. We are apt to forget that the paradox arises from an incorrect statement of facts

When we say that heat produces one particular action upon the human body and cold produces another, we are stating only half facts; both produce effects according to the method and to the quantity of their application, and these effects differ more widely than those produced by drugs of widely different classes. Can it be expected therefore that we shall be able to reduce the more complex action of drugs to anything approaching a system or a science, until we have fully realized that the effect of the simplest agent is not that of some inherent quality possessed by it, but to the quantity of it necessary to either stimulate or exhaust a vital function.

The author includes among rational remedies those "which may be termed physiological, i.e., emetics, purgatives, diuretics, hypnotics, stalogogues, and so on." It may be said of any one of the drugs included under these names that they are capable of exercising effects directly the opposite of that which their classification implies, and that in no case does the word purgative, emetic or stalogogue imply the full quality or capacity of the drug. The opium cater does not take opium as a hypnotic, but as an agent which temporarily stimulates the mental and physical powers. It is the "emetics" which are of very frequent service in checking vomiting, the purgative in checking diarrhæa, but they must be used in doses proportionate to the effects required of them.

5

Are such facts simply accidents? Is there no natural or physiological cause for them? Or is it, that nature, acting on definite laws in all other matters, is only paradoxical when medical treatment is conceined? It is this which appears to us to be the strongest argument in favour of the possibility of law and order in therapeutic science There must always be cases where cure is out of the question, and where the only business of the physician is to relieve symptoms Here the great resources which we possess in respect to remedies of a palliative character serve us in good But when we come to that attention to nature which the word therapeutic implies, to the restoration of the enfeebled organ to a state of health, are we to boast because we can tempotartly force into energy any organ or function that happens to be weak, or imagine that by so doing we are restoring the body to its normal state? Can we, to quote an illustration of rational therapeutics given by the author, having changed the leaction of an alkaline urine by the exhibition of a vegetable acid, assert that we have done anything towards the cure of the condition upon which it depends?

It may appear rational at the end of this century to cure sleeplessness with an hypnotic, fever with an anti-pyretic, constipation with a purgative. Will all this appear equally reasonable to our successors at the end of the next? Will they not consider the use of such agents as a mere masking of the symptoms, an abolition of the signs put forward by nature to warn us of the patient's danger?

It is impossible to forecast the steps by which the ait of therapeutics will be brought into line with other branches of science. We may, however, take into account the fact that all physiological experiment shows that the reactions of the functions to stimuli obey precise and definite laws. They are stimulated to a certain point, and then exhausted. Hence by the intensity of the stimulus we can determine one of two opposite results, the increase of a function or its abolition.

This does not imply that the same drug possesses opposite actions, because there is no difference between a drug and a mechanical agent in its action upon the body. Both are physical agents whose movements continue in the same direction. The same drug or mechanical agent may thus produce opposite effects according to the intensity with which it strikes.

One of the first things to be expected in the construction of a science of therapeutics is the distinction between the exhaustive or toxic action of a drug, and its stimulant or remedial action

The pursuit of such investigations may also lead us to alter the views at present entertained respecting the nature of drug action.

Effects which are apparently due to the stimulant effect upon the functions of the body, may be found to be really due to an exhaustion of functional energy; it may be even shown that every symptom produced by a drug on the human body (such symptoms as call attention to themselves) is due to a depression of vital energy

If this is so it may be possible to have some definite law by which we can distinguish "a drug" from "a remedy," the "remedy" being an agent which will *not* produce symptoms when administered to a healthy person.

The main difficulty which appears to stand in the way of our being able to adapt our therapeutic agents to physiological principles is that we do not think in physiological terms. We speak of nervous excitement, as if it were due to an increase of nervous energy, whereas physiologically it is due to a diminution of nervous power. We subdue the excitement by a dose of bromide, and as the result is satisfactory, we consider that we are practising "rational" therapeutics. Physiologically we are only further chausting a weak nerve, and thereby throwing it temporarily out of action. The symptom is removed, but the disorder is none the better. If we thought physiologically, it is not the dose of bromide which would suggest itself, but some nerve tonic, given in a dose that would restore the exhausted nerve, without exciting it. We should use a stimulant to produce a sedative action. It is not necessary for the elevation of the art of therapeutics to a science that one formula, one law, or one system, should be adopted branch of science is governed by the application of one single rule. We already recognize definite physiological laws which are demonstrably true, and it appears that when we use remedies in accordance with these laws we shall be practising a science, not an art

### AMMONIUM (Tetra-ethyl of).

Recent experiments indicate that tetra-ethyl ammonium possesses marked Solvent Power over Uric Acid, and is perfectly safe for internal administration. It is a definite inorganic compound, occurring in deliquescent hair-like needles, absorbs CO<sub>2</sub> from the air, is strongly alkaline, saponifying fats; is as bitter as quinine. Concentrated, it burns the tongue, and has caustic action upon the epidermis.

Internally, a solution of 10 per cent, may be employed in doses of 10 to 20 minims by the mouth, or 10 minims of a 1 per cent, solution may be injected hypodermically. This preparation must not be confused with tetra-methyl-ammonium, which is poisonous and gives rise to symptoms similar to those of curare.

REFERENCE -" Philadelphia Polyclinic."

#### ANTISEPTIC POWDERS.

The following is employed by M Terrier Iodoform, powdered benzoin, powdered cinchona and carbonate of magnesum, of each equal parts; a sufficient quantity of oil of eucalyptus being afterwards added

The following is recommended by Dr Pick2 of Boston-

A fifth of a giain of coirosive sublimate in this mixture gives a powder of the strength of I to 5,000, and a third of a grain, I to 3,000

In preparing this powder care must be taken by the druggist to mix the sublimate very gradually and thoroughly with the sugar of milk, and then to add gradually the other ingredients, so as to be certain to obtain a uniform distribution of the bichloride in the mixture

REFERENCES — " "Union Médicale," Dec 30, 1893, 2" New York Med Journ," April 7, 1894

#### APOCODEINE.

From a study of this drug made by L Guinaid it has been proved. when pure, not to exhibit emetic properties. It is said, when given in proper doses, to have a calming effect, without a stage of preliminary excitement

Following the administration of a calming dose of apocodeine, there almost always occurs a short period of cardiac and respiratory acceleration, accompanied by a slight elevation of the arterial pressure On the other hand, during the period of sleep produced by the drug, both the heart and the respiration are slowed, and the arterial pressure is maintained at a little below the normal height The slowing of the heart is not accompanied by disturbances in its rhythm, there being no intermittences The action of apocodeine upon the heart is of medullary origin, as shown by previous section of the vagi The diminution of the blood pressure appears to be due more to the slow action of the heart than to an active vaso-dilatation.

A fall of temperature accompanies its somniferous action doses it produces a hypersecretion of saliva, of bile, of the pancreatic and intestinal juices, and of that of the majority of mucous glands. These hypersecretory effects are the result of a central action and not of a special influence exercised by the medicament upon the peripheral elements, particularly the glandular ones.

The changes produced by apocodeine originate in the primary actions excited upon the nervous system. They first show themselves upon the brain, but they are afterwards extended to other parts of the organism. These actions are depressant when the dose ingested is moderate; depressant and afterwards convulsant when the dose has been large but slowly administered, and, finally, convulsant from the onset when the dose is so introduced as to be rapidly absorbed by the organism

The author, comparing the effects of apocedeme with those of codeme, states that there will be found well-marked analogies, especially in regard to the ability of both drugs in producing sleep and in exercising a convulsant action. But a close examination of the subject will also show that there exists between the two medicaments notable differences in their actions. Codeine is less powerful as a hypersecretory and calming agent, but a more active convulsant and more dangerous, therefore, than apocodeine. This last substance, although less powerful than codeine, is, on the other hand, more constant in its effects.

REFERENCE - " Lyon Medical"

#### ASAPROL.

This, which is described as calcium salt of the sulphunc ether of beta-naphthol, was referred to in our last edition as having been used as an Antipyretic and as a remedy for Rheumatism and Sciatica, by Stackler and Durardin-Beaumetz. It has been practically used as a substitute for salicylate of sodium, and Dr. Dujardin-Beaumetz considers that it may be used in many cases where the salicylates would be contra-indicated. He states that asamol is well borne . (1,) In doseof from 4 to 6 grammes, in the form of cachets or in solution, by patients who cannot tolerate the sodium salicylate, quinme, or antipyrin; (2,) In amounts of from 3 to 5 grammes, by dyspeptics who not only cannot tolerate any one of these medicaments, but who are unable to retain food, (3,) Asaprol never produces vertigo, buzzing in the head, cephalalgia, not any cutaneous eruptions; (4,) In patients who, in the course of an acute disease, suffer from a slight albuminuma, the drug, in doses of from 4 to 8 grammes, does not increase the condition, nor does it prevent its disappearance, the albuminuria passing off before the suspension of the treatment; (5,) Patients suffering from Chronic Nephritis, and in whom all medicine, all food, even milk, exercises a noxious effect, tolerate well the drug under study, in doses of from 3 to 4 grammes. In these cases asaprol does not increase the amount of albumen in the urine, neither does the medicament cause nausea, vomiting, or any nervous trouble.

appears to have proved of some benefit in cases of Acute Rheumatism (articular and muscular) and in various neuralgic conditions, such as inter-costal neuralgia

#### ASCLEPIAS TUBEROSA.

This is commonly known as the "butterfly-weed" and "pleurisy 100t" The latter name is applied to it in reference to its popular reputation as a remedy in **Pleurisy**. It grows freely in the United States, where the dired 100t is alone employed in medical treatment. It is found that when 20 grains of the dired root are given in powder, three times a day, it acts as a diaphoretic and expectorant. It is found to diminish both the volume and frequency of the pulse, and to be slightly sedative and astringent. In large doses, however, it acts as a cathatic. It is used by practitioners in the Southern States both in pleurisy and other inflammatory affections of the lungs, such as **Preumonia**.

It is also said to promote the eluption in **Exanthematous Fever.** For this purpose it is employed in the form of a hot decoction

It has also been used in "Rheumatic" disorders with some success. The following indications given for its use in the "Medical Age" (Feb 26, 1894), point to its value in Pleurodynia and pleurisy "For inflaminatory chest trouble, with dry hot skin, or where there is pain in the thorax, localized, sharp, acute, or sub-acute, with increased inspiration, asclepias tuberosa often acts like magic"

Its specific effects appear to be chiefly exercised upon the serous and mucous membranes. Whether it has a direct relation to rheumatism, or is really more serviceable in those neurosal affections which are commonly mistaken for rheumatism is not quite clear, but from the cases treated successfully by this drug, we should say that pain, aggravated by motion, but which may appear when the body is at rest is one of the indications for its employment, and that it may prove useful also in those pains which come on more frequently at night, or which are induced by any extra fatigue or exertion. When used for this purpose 5 drops of the liquid extract is a sufficient commencing dose

#### AURUM METALLICUM.

Dr E A Wood of Pittsburgh, referring to the value of the salts of gold, which he has used extensively, says "The class of diseases in which I have found gold to be peculiarly efficient, and in which it seems to be especially curative above all other drugs, is that class in which **Sclerosis** is the chief factor. In naming sclerosis as a class, I am perhaps taking undue liberty with the nomenclature of the

pachologist, since the term sclerosis is generally understood to mean inducation of the tissues of the brain and spinal cord. Literally it is proper to apply the term sclerosis to any organ or tissue in which indusation is the factor. When we maishal such pathological conditions into a class, we shall find that sclerosis has a wider and, it seems to me, a more significant meaning than has been hitherto attached to the word and the lesions it names. It would seem as though we have reduced therapeutics to an exact science when, instead of a name, we establish an exact pathological condition, with the remedy most efficient in removing that condition. That is the exactitude we have in gold as a special curative agent in all forms of sclerosis. Curhosis of the liver, interstitual nephritis, atheroma and its associate, calcineous degeneration of the arteries, the circumscribed inducation following embolism or blood-clot in the brain-tissue, sensity and its train of decrepitudes- for what is old age but a general sclerosis?-all belong to the class I have named. Cirrhosis of the Lungs, certain forms of consumption -- Fibroid Consumption, Miliary Tuberculosis, and especially that form of consumption in which masses of lymph become organized in the lymphatics of the lungs, as we see the process in the glands of the neck and called adenitis Without naming all the lesions that may be classified under the head sclerosis, I will state as my belief, founded on an experience of twenty years, that gold is far more efficient in them all than any other drug I know of I desire to say in addition that the liquid preparations of gold as combined with bromine, arsenic, iodine, and mercury are as much superior to the chloride of gold and sodium as quinine is superior to the crude Peruvian bark.

"In addition to its efficiency in the sclerosis it would seem as though gold, at least the liquoi auri et arseni bromidi, exercises a power as a tonic and nutrient to the nervous system, especially to the nervous systems of those who have advanced to fifty and beyond. May it not be that in cases of Neurotic Disease of the Aged there is a sclerosis? Certain it is that gold is not so efficacious in functional nervous ailments of the young. It is just to remember, too, that the association of gold with bromine and arsenic may have very much to do with its curative powers?"

The liquor auri et aisenu broundt is almost tasteless. A dose of 10 drops contains one thirty-second of a grain of gold, and one-sixteenth of a grain of bromide of aisenic. The mercuric bromide of gold contains one thirty-second of a grain each of gold and bromide of mercury to 10 drops, which is the dose.

REFERENCE.—" New York Med. Journ.," Oct. 14, 1893.

#### BELLADONNA.

Professor H Kobner, of Berlin, recommends belladonna for such affections of the mouth as Leucoplakia, Mercurial Stomatitis, Syphilitic Ulcerations, Mucous Patches, etc. The theory upon which the remedy is accepted in its antisial agogue properties, and it should be employed in conjunction with cauterization. He remarks it is advisable in many cases to continue the administration of the remedy for some time in full doses, and that under its influence ptyalism, and pain on mastication and deglutition, rapidly disappear

- D1 William Muliay,<sup>2</sup> of Newcastle, after lefelling to the peculiar susceptibility of some patients to the action of belladonna, lefers to its usefulness in the following class of cases
- (1,) Renal Colic.—Here he considers that the drug must be pushed until slight delirium supervenes—that is, by giving 30 or 40 drops of reliable tincture every two or three hours, secondly, it must be given during an attack of colic. It is of no use except the colic be present. It may relieve the ordinary wearing pain of stone in the kidney, but it will not move the stone except the patient is in the throes of an attack of renal colic. When once this occurs he ought to be prepared with the necessary doses and begin immediately, even before sending for his medical attendant. In such cases careful instructions ought previously to be given to the patient. Dr. Murray cannot say that anything in his experience has given him more pleasure than finding the calculus awaiting him after a few hours of this treatment by toxic doses of belladonna.
- (2,) Dysmenorrhæa.—Let it be admitted that dysmenorrhæa is due to spasm, or to mechanical obstruction plus spasm, or plus neuralgia. or plus inflammatory or congestive action in or connected with the uterus, and there is a large field for the action of belladonna patient well under the influence of the drug is not likely to suffer much from spasm, so that the spasmodic element can be eliminated in a case by a full dose or two of belladonna. If after these doses pain still continues, there are no doubt other elements in the case mechanical, congestive, or inflammatory The neuralgic element is also to a great extent eliminated by belladonna, so that one can get rid of these two causal elements by means of this remedy, and thus the diagnosis is simplified. By far the best method of administering the drug for pelvic pain is the use of the suppository of I grain of the extract repeated every two or four hours. The suppository should be used as soon as the first sign of pain indicates the molimen, and although it is a somewhat disagreeable mode of administration Dr. Murray thinks the general use of

belladonna suppositories for this ailment ought to be advocated, and many sufferers from even slight dymenorihea ought to be provided with this remedy and instructed in the use of it

Di Murray also recommends belladonna strongly in cases of Painful Defecation, and Obstruction of the Bowels, and quotes some successful cases in proof of the latter point. He does not consider that the effect is simply due to the relaxation of fibre caused by the drug. It appeared more as if the intestines were roused from their dormant state into violent activity by the drug. There is nothing opposed to physiological experience in Dr Murray's views. It is known that when frogs have been poisoned by belladonna and put aside for dead, they frequently exhibit during the process of recovery powerful spasms of the muscles, closely resembling strychnine poisoning, and if it were safe to carry the administration of belladonna far enough probably the same results would be produced in the human subject. How far it may be safe to push the action of belladonna until tetanic spasm is produced is another question. That some have great toleration for the drug, and others extreme susceptibility, is widely known. We have seen toxic symptoms produced by one drop of 1 in 1000 solution of its functure, and cases of grave physiological disturbance caused by the use of the ordinary solution of atroon in ophthalmic practice. On the other hand Dr. Murray records a case where 8 grains of belladonna extract, taken by mistake, produced little effect on the patient.

REFERENCES — "Medical Age," Feb. 2, 1894 2" Lancet," Nov 4, 1893.

## BLOOD SERUM. (See also "Naja Tripudians.")

In an article upon the action of rattle-snake venom by Dr. Chas. B Ewing!, of the U. S. Army Medical Department, there appears a very excellent report on our present knowledge in respect to the germicidal action of blood serum. Dr. Ewing says this germicidal power of the blood is one of very great significance, on which many of the modern theories of immunity depend. It is of special interest to ascertain under what conditions the germicidal properties of the normal blood serum are at their highest, and in what way these properties affect the composition of the blood. The principal workers in this field have been Von Fodor, Nuttall, Wassermann, Kitasato, Buchner, Ogata, Hankin, and others. Von Fodor's work had reference to the composition of the blood, and was intended to show that arterial has a more destructive action on bacteria than venous blood, and also that fresh blood has a more destructive action than

that which has been standing for some time. It was also found that the germicidal power of the blood was weakened in an atmosphere of oxygen or carbonic acid gas, but the removal of gases from the blood had no appreciable effect. A series of experiments showing the effect of moving and stationary blood upon bacteria by means of small globes containing blood, some of which were kept in constant motion and others quite stationary, resulted in no appreciable difference being observed Temperature affected very materially the bactericidal power of the blood, which increased with the rise of temperature from 38° to 40° C, and then gradually diminished with the fall Von Fodor is of the opinion that the individual predisposition of an animal to an infectious disease stands in close relationship with the germicidal power of the blood A second series related to the influence of drugs on the power of blood to destroy germs. Hydrochloric acid had no effect, taitaric acid and quinine respectively produced a marked decrease A slight increase was produced by common salt and carbonate of ammonium, but a more marked effect by the phosphate of sodium, while the carbonate of potassium and sodium showed a very remarkable increase From these experiments the deduction was made that the bactericidal power of the organism was raised by any drug which increased the alkalinity of the blood. The third series verified the conclusions regarding the alkalisation of the blood Of eight rabbits inoculated with anthrax all died, whilst of nineteen which had been previously injected with solution of soda, only three died. A majority of the sixteen remaining were perfectly free from disease, only a few being fatally affected. Up to this time, however, the doctrine of phagocytosis as advanced by Metchnikoff held sway, when Nuttall struck the first severe blow to this theory. He, in his most excellent inaugural dissertation at Gottingen in 1890, showed that the destruction of virulent bacteria in the blood of animals by the leucocytes was not at all essential, but that the serum of blood free from all cellular elements possessed this power to a degree equal to the blood in its entirety. Nuttall's work is graphically shown in some twenty-eight tables in his "Beitrage zur Kenntniss der Immunitat." He here proves very conclusively that in the blood, bacteria presented marked evidences of degeneration before being taken up by the wandering cells or leucocytes. It was also seen that the bactericidal power of the blood of different animals varied, and that while in some certain bacteria were promptly killed, in others these were simply restrained for a time, or not affected. Buchner, Lubarsch, Nissen, Stern, and Prudden have practically verified these observations. Buchner particularly, in his experiments upon dogs

and labbits, verified the findings of Nuttall; but went even further, and proved that the bactericidal power of the blood of these animals did not at all depend upon the cellular elements, but resided in the clear serum which separated from the clot after the blood had stood awhile in a cool place. He also demonstrated that the germicidal action of blood and serum was destroyed by exposure for an hour to 55°C, or by heating to 52°C, for six hours or to 45 6°C, for twenty hours. Alternate freezing and thawing did not destroy the bactericidal power of serum, but it was diminished or completely checked by dialysis with distilled witer, or by extreme dilution with the same. He preserved the anti-bacterial action of the serum by makin, an equal dilution with a 0 6 to 0 7 per cent, of sodium chloride solution, and was led to believe that the activity of the serum was greater alone than when the cellular elements of the blood were present; hence he concluded that the active element is a living albumen, having as an essential constituent an alkaline base

This albuminoid substance is thought by Hankin to be identical with his "globulin," isolated from the spleen and lymphatic glands According to the views of these experimenters the germicidal power of the blood resides in the serum alone and phagocytosis is but a secondary process, the leucocytes taking up the bacteria only after they have been rendered mert by the germicidal power of the serum of the blood and certain other fluids of the body. For our purpose, however, it is not necessary to insist upon the humoral as opposed to the phagocytic doctrine of immunity. All that concerns us is the recognition of the bactericidal power of the blood serum under certain conditions. The loss of this normal germicidal power helps us to explain the varying rapidity with which post-mortem decomposition ats in It is well known that the bodies of persons who have died from different diseases decompose with varying degrees of rapidity We cannot explain this differing rapidity of decomposition simply by variations in temperature, for under the same external conditions one body will be decomposed in comparatively a few hours and another may remain undecomposed for several days. We selected the animals killed with rattle-snake venom because it is well known that they decompose with great rapidity. The bodies of human beings killed by snake venom are also said to decompose with great rapidity.

The results of our experiments furnish a satisfactory explanation of this phenomenon. The blood at the time of death, and even before death, has lost all, or nearly all, power of resisting the invasion and multiplication of certain bacteria, so that the bacteria of putrefaction which are normally present in the intestine develop with astonishing

rapidity, and even before the animal is cold produce this wonderfully rapid decomposition. Our experiments are also suggestive as regards certain secondary and mixed infections. The toxic proteids of snake venom belong to the same class of poisons as those formed by toxic bacteria, such as the bacillus of tetanus, of diphtheria, etc. .t is easy to suppose that these infectious diseases may cause a diminution of the germicidal power of the blood against secondary invaders, of which common examples are the pyogenic bacteria present often in our mouths and intestinal canals, and which, in an individual whose resistance is lowered by a loss of the germicidal power of the blood, may grow and multiply. In other words, we can understand better the causation of many of these secondary infections.

REFERENCE -1" Lancet," May 19, 1894

#### BROWELIN.

This is the digestive ferment of the pine apple and somewhat resembles the action of papain and papoid. It has the power of digesting proteids which is manifested in fluids of all reactions, acid, alkaline, and neutral, the ferment being in this respect a trypsin rather than a pepsin, it acts, however, most strongly in a neutral solution. The proteolytic ferment may be separated by saturation of the neutralised fluid by sodium chloride or magnesium sulphate, the former being the preferable method. It appears to be a mixture of a globulin and a proteose

#### CALCIUM CHLORIDE.

The value of chloride of calcium as a hamostatic forms the subject of a recent communication by Prof Saundby to the "Birmingham Medical Review" He records one case of severe Bleeding from the Rectum, probably due to piles, in which the drug administered in small doses every four hours, caused the bleeding to stop in five days Ovarian remedies used in the same case had completely failed

In another case of **Purpura Hæmorrhagica**, where there was bleeding from the gums and slight **Hæmaturia**, in which eigot, gallic acid, and acid infusion of ioses had been used in vain, small doses of the calcium chloride checked the bleeding in five days

There is a very important point respecting the dose of this drug When too large a dose is given the coagulability of the blood is aiminished instead of increased, and Piof. Wright proved by adding too large a dose of its salt to decalcified blood in vitro, coagulability diminished, and on taking 2 grammes of calcium chloride three times a day the coagulability of the blood rose during the first twenty-four hours, returned to normal during the second, and in the third fell

below normal, so that the best results may be looked for from computatively small doses. In the author's cases the drug was administered in the form of the liquor calcu chloridi of the new British Pharmacopæia, which is of the strength of i to 5, and the dose employed never exceeded 30 minims, or 6 grains, though in the case of purpura this quantity was given every two hours during the day for some days.

#### CAMPHORATED PHENOL.

Bufalmi suggested many years ago the combination of camphor with carbolic acid, because while the camphor greatly moderates the caustic and disorganizing effect of the acid, it does not interfere with its antiseptic properties. This combination is prepared by mixing one part of carbolic acid with two parts of camphor, allowing the mixture to stand for some hours and purifying it by washing with water. A liquid is thus formed of a reddish yellow colour, having the smell of camphor, which is insoluble in water but soluble in alcohol or other.

Dr. Toms ("Medical Record") states that he has been using this preparation "diluted with 50 per cent of cotton seed oil" with excellent results, as a dressing for a severe case of extensive ulcerating **Epithelioma** of the leg, with most satisfactory results. It appears that both the oil and the ointment made in a more dilute form would make a more agreeable and more anaesthetic dressing than pure carbolic. We have for a long time used a combination of carbolic acid and camphor as one of the best remedies for **Pruritus**, and have found it very useful.

#### CARPAINE.

This alkaloid, obtained from the leaves of Carica Papaya, has been investigated by Von Oefele. He finds its action closely resembles the digitalis group. In doses of ½ grain per diem it caused similar disturbances in the rhythm, blood pressure and pulse. He also found that carpaine was the only congener of digitalis that could be used hypodermatically without causing irritation and abscesses. The cardiac diseases for which he found it most useful were Aortic Insufficiency and Stenosis. In doses of 10 grain daily it effected reduction of the frequency of pulse, alleviation of Dyspnæa, and doubled the Excretion of Urine.

#### CEREBRINE.

In our article on Organic Extracts in the "Medical Annual" 1894, p. 25, we expressed a very strong opinion in respect to cerebrine and remedies of its class. We have since seen a letter

addressed to the Journal of the American Medical Association by Prof. Bower of Chicago, and one from the eminent chemist, Delafontaine affording evidence that the active principle of cerebrine is nitro-glycerine, with which this mert organic extract is sophisticated.

From an advertisement which appears freely in the American newspapers with Dr Wm A Hammond's name attached, we find that "the physiological effects produced by a single dose of cerebrine are acceleration of the pulse with feeling of fulness and distension of the head, etc"

These are symptoms of nitro-glycerine and do not appear after a dose of cerebrine prepared in accordance with Dr. Hammond's published formula

#### CINNAMON OIL.

Dr Just Championniéie<sup>2</sup> considers this essential oil to be almost equal to corrosive sublimate, as an **Antiseptic** and **Microbicide**.

He found the best combination was made with rétinol, and he uses the following —B. Rétinol, 75 giammes, Sterilised Wax sufficient to make a proper consistence, Cinnamon Oil, I giamme Or, B. Rêtinol, 75 grammes, Sterilised Wax, 25 giammes; Cinnamon Oil, I gramme;  $\beta$ -Naphthol, I gramme The oil must have been recently re-distilled. The preparation is spread on lint and applied to the wound. The author has employed this preparation in cases of laparotomy, radical cure of hernia, excision of the chest, etc, and he claims that extensive wounds, even those which are drained, may be kept in a very satisfactory state of antisepsis

REFERENCE — " "Amer Journ. Med. Sci." Oct 1893, p. 479

### COCAINE.

In order to prevent the unfavourable after effects of cocaine when it is used as a local anæsthetic by injection, Di Gauthier suggests the addition of I drop of a I per cent. solution of nitro-glycerine to the quantity injected.

As many patients experience severe physiological disturbance from a single drop of nitro-glycerine given by the mouth, we would suggest that those who adopt this recommendation shall use a smaller dose, or they may find that the remedy is more troublesome than the disease.

A drop of nitro-glycerine (I per cent solution) placed on the tongue of patients suffering from cocaine symptoms is undoubtedly a very useful remedy

REFERENCE — "Gazette des Hôpitaux."

#### CROTON OIL.

The following notes on the administration of croton oil, which we find in a recent issue of the "Medical Age," are of practical interest —-

"Croton oil, as is well known, is derived from the Croton tightim, a tree of the natural order Euphorbiaceæ, indigenous to India, the Moluccas, and Ceylon—All parts of the growth possess medicinal properties, but the seeds alone are employed medicinally, and are likewise the source of croton oil. In the Orient the seeds are prepared for use as a safe and efficacious purgative by being boiled thrice in milk, drying well after each boiling, and finally removing the outer shell and embryo.

"Doctor Waring remarks that he has found the seeds, especially when prepared in the form of pill with catechu and oil of peppermint, uniform in action, 'producing five or six copious watery stools, and operating within two or three hours after being swallowed.' The oil is diastic purgative in doses of 1 to 3 drops, but is merely Stimulant, Cathartic and Alterative in closes of 100 to 100 grain. It may be given in the form of a pill with any simple excimient; or if the patient from any cause is unable to swallow, it may be placed at the root of the tongue, its whole purgative action being equally obtainable in this way. Besides activity and smallness of dose, there is another advantage in its employment, viz. the circumstance of its operating chiefly through nervous influence; hence it is emphatically a specific cathattic. When applied endermically to the abdominal region, conjoined with some soft oil, besides acting as a vesicant it proves cathartic in a very short time.

"In some persons, it is true, croton oil produces, even in small doses, severe hypercatharsis, yet this idiosynciatic action, which is only rarely mainfested, may be readily relieved by a draught of lemon or lime-juice. When administered in connection with camphor monobrounde in the proportion of 2 to 5 grains of the latter, its effect is very happy, being devoid of nausea, hypercatharsis, and tormina. Alkalies also modify the acrimony of the oil without impairing its cathartic properties, and the addition of a small portion of opium diminishes violence of action. It may be added that alcohol removes the vesiciating principle from the oil without materially impairing its value as a cathartic.

"In the obstinate Constipation which accompanies inflammation of the biain, mania, and other cerebial affections, croton oil is especially valuable, acting not only as an aperient but as a derivative and revulsive It is peculiarly advantageous in the treatment of Apoplexy owing to the ease with which it may be administered—placed on the back of the tongue it acts freely throughout the digestive tract. It is also efficacious in Lead Colic when other remedies fail. In Dropsical Affections where hydrocathartics are indicated, full doses are often preferable to elaterium or other remedies of this class, but it is not admissible when the patient is old and debilitated. In this class of cases it should be first administered in small doses, and then increased according to the amount of purgation induced.

"Doctor Heaton," of Leeds, called attention to the fact that when it is advisable to administer a cathatric in Albuminuria there is none so convenient as croton oil, which he declares produces "copious evacuations with less sickness and discomfort than elaterium". In Neuralgia, Tic Douloureux, and Sciatica, Mr. Newbigging, asserts all distressing symptoms disappear after its internal administration. In these cases it undoubtedly acts as a revulsive, but it must also be remembered it is claimed to possess a specific power in this class of maladies apart from its purgative action.

"Doctor Sewall, of Ottawa, Canada, unges the extension of the use of this drug to **Chronic Rheumatism**, in which he declares he has employed it 'with great advantage in many instances'

"Physiologically, croton oil, by increasing the vascular dilatation in the intestines, lowers intercranial blood-pressure, consequently it should not be employed when a condition of cerebral anæmia exists

"From the foregoing it may be readily surmised that croton oil is far from the dangerous iemedy that it is generally considered, and that, employed with due reference to its physiological application, it fills a place in therapeutics occupied by no other drug, that it is the iemedy chiefly available in disordered states of the nervous system, that it is serviceable when bulky drugs are inadmissible, or where the patient is insane or otherwise unmanageable, or exhibits difficulty in swallowing. It is contra-indicated, however, in young and delicate subjects, in debilitating complaints, and where any portion of the alimentary canal is in an irritable or vascular state, though even under these conditions, if carefully administered in conjunction with bromide of camphor or alkalies, it may prove of especial service. In minute doses it is unmistakably the best hepatic stimulant we possess

REFERENCES — "Piov Med Journ" April, 1849; "Edin Med Journ," January 1, 1841, 3" Braithwaite's Retrospect," 1865.

#### CUPRI SULPHAS.

Dr. A F. Price' says copper exercises a specific action in **Syphilis**, which is especially directed toward the lymphatic system. It is for this reason more radically curative than mercury.

It is slow in removing the skin symptoms of the secondary stage. It prevents the development of mucous patches and throat symptoms. It is a very active drug, and it is wise to omit its use one day in a week, and sometimes more frequently. The signs of its excessive and injurious action are first a voracious appetite, and this is rapidly followed, if the dose is not reduced or the drug temporarily discontinued, by prostration, giddiness, pallor, and a rapid and weak pulse.

The average dose of sulphate of copper is  $\mathfrak{gl}_0$  giain thrice daily. It is better to give it with the sulphate of iron. It can be given either in pill or solution.

This dose is absolutely dangerous in cases of syphilitic cachevia. It produces at once excessive and alaiming prostration. If a sufficiently small dose of the drug is given at first, a tolerance of it is gradually established, so that the average dose may in time be attained.

He is inclined to think that in some cachectic cases as small a do e as 10000 grain may be necessary, given once daily. The use of iron, arsenic, and iodide is also usually necessary in old syphilis.

REFERENCE.—" American Lancet," March, 1894.

#### CYNOGLOSSUM MACROSTYLUNBRIGE.

This plant belongs to the natural family of Boraginacca, and has been identified by Prof. A. F. Batalin as identical with the "kulankuirgak" which the peasants of some parts of Turkestan, when Goitre is prevalent, use for the cure of this disease. The remedy is used both internally and externally. Internally it is taken in the shape of an aqueous infusion prepared from the whole plant minced (including the root), an average daily dose of such "tea" being 6 tumbler-Simultaneously a well-steamed leaf of the plant is applied hot to the tumour and fixed by a piece of some woollen stuff, the simple dressing being changed once daily. The treatment is continued until the patient has obtained a more or less pronounced improvementthat is, until all uncomfortable sensations have disappeared, and the tumour is more or less markedly duninished in bulk, after which the patient leaves his gottie alone. The natives certify positively that "such a goitre as has once decreased in size under the influence of the kulan-kuirgak will never grow any more, remaining in statu quo for the rest of the subject's life." Similarly successfully the remedy is employed for the treatment of all possible tumours, abrasions, etc., in

horses and cattle, the diseased parts being kept covered with a sort of plaster made of the plant

REFERENCES — "Vratch," No. 17, p 495, 1893 ("Journ of Laryngol," p 596, 1894).

#### DIAPHTHERIN.

The investigations made by Stabel with this agent show that anthrax spores lost all power of growth after being in a 15 per cent. solution for three days. From a series of experiments on animals the author concludes that even the continued use of diaphtherin in man cannot be injurious, as it could not be used in sufficient quantities to be dangerous. It is especially adapted, on account of its non-poisonous properties, for washing out hollow cavities where at present very weak antiseptics have to be employed. It is to be preferred in 1 or 2 per cent solution to other antiseptics where most applications are required for a long time, as in Burns, Ulcers, etc. It only discolours the nails and hands when previously soaked in sublimate solution. Steel instruments must not be put into it.

REFERENCE —"Munch med Woch", Sept 10, 1893

#### DIGITOXIN.

Masius' says that digitoxin, when given to patients suffering from Cardiac Affections, causes evanosis and dyspnæa to disappear, and restores regularity, force, and volume to the pulse. These effects manifest themselves between the twelfth and twenty-fourth hour following the administration of the drug At the end of twenty-four hours marked diviesis occurs, the amount of urine discharged sometimes amounting to four litres in the day. The gastric derangement caused by digitoxin is trifling. The author has tried the drug in twenty-six cases Six times he has, after the administration of doses varying from 3 to 4½ milligrammes, seen vomiting occur, but this soon ceased when the drug was discontinued The digitoxin is better tolerated when given in black coffee with sugar. The remedy may usefully be prescribed in certain acute diseases, such as pneumonia and typhoid fever. In patients suffering from the former affection, it after some hours brings about a reduction of temperature, and has a very favourable action on the pulse It is equally efficacious in typhoid

REFERENCES—"Acad de Méd de Belgique," July, 1894, "Presse Méd," August 25, "Brit Med Jouin," Sept 9, 1894

#### DI-TODOFORM.

This has been brought forward as a substitute for iodoform, its chief merit being that while it possesses the **Antiseptic** and **Cicatrizing Action** of iodoform, it is without smell.

M. I. Maquenner says it is a definite iodide of carbon, which answers to the formula C<sub>2</sub>I<sub>4</sub>, it is derived from ethylene or olefant gas, and should be called, according to the rules of chemical nomenclature, periodized ethylene

The quantity of jodine is very nearly the same, exceeding greatly that contained in iodol and aristol, which are sometimes used instead of iodoform. This explains the analogy of the action of these two substances and their undisputed superiority over all other antiseptics having rodine for their base. Di rodoform is a yellow substance, almost entirely odourless in an ordinary temperature, which melts at 377 6° F, and becomes decomposed into its elements, carbon and roding, under 302°, it is perceptibly volatile when heated, and can be Completely insoluble in water, slightly soluble in alcohol, di-jodotoim is easily dissolved in carbon disulphide, in chloroform, in benzene, and in the majority of hydrocarbons, and it is deposited in the form of beautiful prismatic needles, which are pulverized for use like iodoform crystals. Di-iodoform can be kept indefinitely in a dark place, but is susceptible to light. Under its influence it becomes darker and emits a slight odour somewhat like that of the hypochlorites, In order to prevent this, di-iodoform, and all preparations in which it is contained, should be put into bottles coloured green, yellow, or red. It is recommended also, when employing it, not to expose it too long to a bright light. If these precautions are followed, it is possible to have dressings that are strictly odourless. Experience has shown that it is well borne by the stomach, and that it is practically nonpoisonous. With regard to its germicidal action, it is the same as that of rodoform

REFERENCE.—""La Piesse Méd," Feb., 1894.

#### DJAMBOE.

Hugel' has employed the leaves and bank of this plant with good effects in several hundreds of cases of Gastro-Enteritis in children, the Diarrhea and vointing being rapidly improved. In five cases of severe gastro-enteritis in the adult, accompanied by vointing, diarrhea, low temperature and cramps, a few doses of caloinel followed by djamboe produced rapid improvement. In about twenty-five cases of diarrhea in Phthisis it was used with beneficial results. In two similar cases, however, it was without effect, and in two others it only acted when combined with opium. An infusion is more suitable for children, and a fluid extract for phthisical adults.

REFERENCE. -- "Munch. med. Woch.," July 17, 1894.

#### DUBOISINE.

From the careful and detailed observation of Dr de Montyel, chief physician of the Asylum for the Insane, Department of the Seine, we are able to note the following effects of this drug when administered to produce sedative effects —

Skin — The skin becomes dry, but the dryness is not accompanied by any symptoms which attract the attention of the patient. Sometimes perspiration is produced

Mouth—Dryness of the buccal mucous membiane occurs, which causes discomfort Sometimes intense salivation is produced instead of dryness

Urine — Usually a marked diminution in quantity is present

Bladder and Urethra—No effect usually observed One patient had urethral spasm (He was suffering from general paresis)

Stomach—Digestive disorders usually appeared after drug had been used for a few days Loss of appetite Tongue sometimes coated, sometimes not Taste in mouth resembling soap Vomiting, which usually occurs at or after principal meals

Vomiting did not occui when the diug was only administered at night, with two exceptions

Nutrition — General loss of flesh in all patients to whom it was administered, rendering it necessary to abandon the drug in many cases. The emaciation was observed in patients who did not suffer from vomiting or loss of appetite.

Loss of weight was not observed in patients to whom the drug was administered only at night

Nervous System —A decidedly sedative effect on the nervous system was observed This is accompanied by reduced arterial tension, elevated temperature, and sluggish pupil

Flushing of face and veitigo were only occasionally observed

Patients soon obtain a tolerance to the sedative effects of the drug. In other words, the only effect of the drug from which the patient obtains a temporary advantage is lost after four to twelve days

In respect to its administration, Dr de Montyel says hypodermic injection is superior to its administration by the mouth, both as regards the rapidity of its action and its efficacy. It is also better to give the drug interruptedly than continuously, in order to avoid a tolerance of it, and, finally, it is better to give it in fractional doses than in a single dose.

#### DULCIN.

Prof. Kobert<sup>1</sup> has brought forward a new sweetening agent, which is 200 to 250 times as sweet as sugar Structurally it must be described

as para-phenacetol carbainid. It is an aromatic uric acid derivative related to phenacetin. It is a white powder which melts at 173° C, to 174° C, and is soluble in about 800 parts of water at 15° C, 50 parts of boiling water, and 25 parts of a cold 90 per cent. solution of alcohol It is capable of producing poisonous effects when administered in large doses to animals. In the relatively small doses necessary for sweetening the food of diabetic patients and the obese, Prof. Kobert considers the agent harmless, and mentions a case in which 8 grammes were taken daily for three weeks with impunity. It is quite evident, however, from the physiological experiences related that some care is necessary in the use of this article.

Reference.—""Central. fur Innere Medicin.," ("Lancet," April 24 1894)

#### ELATERIUM.

The following is said to be a preparation used by Prof King in the treatment of Cystitis:—

R Elaterium

5j | Alcohol (75 per cent )

Oj

Sig -30 to 60 m to be used three times a day until the bowels are fixely acted upon, and afterwards 8 to 10 drops every three hours.

A preparation of 10 drops of the tincture in 4 ounces of water, and a teaspoonful given three or four times a day, is said to relieve irritation of the bladder and kidney

REFERENCE. - "Medical Age."

#### EMOL.

This is the discretional name given by Di W Allan Jamieson,1 to a natural product, refined and purified by various intricate processes, but unsophisticated in any way. He has had the opportunity afforded of seeing the substance in situ, and of following all the stages through which it passes till it emerges as the delicate, soft, impalpable powder. The material from which emol is prepared is found in large quantity near Dunning, in Perthshire, where it occurs in close association with sexpentine marble, chalcedony, onyx, and copper. It has been examined and analyzed by Dr. Readman, who finds that it is allied to fuller's earth, yet is distinct from most, if not all, varieties of fuller's earth hitherto in the market. Emol contains steatite as well as silica, alumina, with a mere trace of lime, and it is probably to the first ingredient named that its peculiar properties, summarized in its adopted designation, are due. The delicate pink tint which it exhibits is owing to the presence of a very minute quantity of oxide of When placed on the tongue there is an absence of the

sensation of grittiness so perceptible when fuller's earth of the ordinary kind is tested in a similar way.

The first effect noticed when a small quantity—say a teaspoonful—is mixed with a hard water, such as is met with in limestone districts, in a basin, is its immediate softening influence. Used in this manner with warm water it acts as a natural soap, cleansing the hands, and at the same time leaving them soft and smooth The workmen engaged in its preparation found that their previously horny palms became so much altered by continued contact with it that they were no longer fit for active manual labour, assuming, as one of them remarked, a softness more like that of a lady's hand, they could not use their hands for any employment which exposed them to finction. This experience led Dr. Jamieson to try it for the purpose of softening and removing those horny accretions encountered in some states of Keratosis of the palms and soles the treatment of these salicylic acid in some form or another has hitherto proved the most effectual agent, but its application is accompanied with considerable pain, though otherwise successful enough for a time, if not permanently When, however, a magma of emol was made by moistening some with water, so as to form a paste, applying it pietty thickly, and preventing evaporation by covering with an impervious material, such as oiled silk or guttapercha tissue, the epidermic masses became softened and loosened. and could be peeled off in layers, eventually leaving the part so treated soft, smooth, and pink in hue. In this way he was able to remove the hard, horny epidermis in several cases of Eczema of the palm and sole One of these cases was that of a gouty lady, tall and stout, in whom many different methods of management had been before tried with but indifferent effect. In her case the subsequent application of unguentum vaselini plumbicum, spread on cotton, had the result of restoring a healthy cuticle, which enabled her to undertake a prolonged continental jouiney with ease and comfort

This substance appears likely to prove a most important addition to our therapeutic resources.

REFERENCE — "Brit Med. Journ"

#### ERGOTINE GALLATE.

Dr. Blaschko, of Berlin, employs the following preparation in the treatment of Hæmoptysis:—

R Ergotine r part | Syrup of Althæa 25 parts
Gallic Acid r part | Distilled Water 25 parts
Sig.—A teaspoonful is given every two hours.

Where there is much disposition to cough, the syrup of althea is replaced by syrup of diacodium, and, if there is imminent danger of death, the patient takes the teaspoonful every hour.

#### ETHYL BROMIDE.

We called attention to the value of bromide of ethyl as an Anæsthetic, in the "Medical Annual" p 13, 1893 Piof Teinei, has lately used it largely at the Hôpital Bechat, Paris, and the following description of his mode of administration may be useful "The bromide of ethyl should be given in large doses. After pouring it abundantly labout 3 grammes] upon a folded towel, it is placed over the nose and mouth of the patient, who is told to breath deeply. Generally at the second or third inhalation a slight agreation appears, but at the fifth or sixth the ancesthesia is complete, with total loss of consciousness. With the continuance of this anæsthetic, in a moment, sometimes preceded by tonic contracture, the complete muscular resolution is accomplished, with congested face and dilated pupil this moment the towel saturated with ethyl bromide is rejected and another upon which chloroform is poured is substituted in its place, without allowing any interruption of anaesthesia in changing The first dose of chloroform only should be fairly strong. this moment the operation may be commenced labout thicequarters to one minute since the commencement of the thesial. The facial congestion diminishes little by little, the pupillary dilatation gives place to retraction, in a word, the transition from the anæsthesia of the bromide to that of chloroform is accomplished without the slightest interruption of the sleep this moment the continuance of the anaesthesia is done in the The difference is simply that the complete aniesordinary way thesia is immediate, instead of resultant of a period often long, which is necessary in the process of chloroform anaesthesia."

The reporter of the above description to the "Therapeutic Gazette," maintained a patient in a condition of anesthesia for thirty-two minutes, by using 3 grammes of bromide of ethyl and 12 grammes of chloroform, while Prof. Terrier performed the operation of ovariotomy.

Dr Segond, of the Muson de Santé, Paus, is said to be using this method to the exclusion of all others.

Prof. Panloff,2 makes the following observations -

- (1,) The narcosis comes on in a relatively shorter time—about two minutes—and the patient does not pass through a stage of excitation
- (2,) It requires a very small amount of bromide of ethyl—about 5 grammes—to bring about full aniesthesia.

- (3,) The naicosis is not attended by any disagreeable manifestations
- (4,) A small amount of chloroform is needed to keep the narcosis up
  - (5,) There follow no bad after-effects

About 16 grammes of the chloroform is required to keep up the naicosis for fifteen minutes

Kochler,3 reports an instance of death during the administration of ethyl bromide The patient, a weak, though otherwise apparently healthy, woman, aged twenty-one, was about to be submitted to an operation for rectal fistula. The anæsthetic was given in small quantities with a mask After a very transient and mild stage of excitement the heart's action suddenly ceased. The breathing continued for about half an hour, but, notwithstanding galvanism of the phienic nerves, subcutaneous injections of ether, and injections of saline solution into the median basilic vein, the patient never There can be no doubt, the author thinks, that the fatal result in this case was due to cardiac paralysis. The air-passages remained quite fiee, and breathing persisted for some time after the cessation of the cardiac movements. There was no indication of any respiratory disturbance The phienic nerves ceased to react to the electric current between four and five minutes after the arrest of the heart's action The anæsthetic, on careful examination, was found to be pure Ethyl bromide, it is held, cannot be regarded as an absolutely safe anæsthetic. No fewer than five cases have been recorded in which death was the result of a careful administration of a pure preparation of ethyl bromide. The result of the necropsy in the author's case confirmed the suspicions that had been suggested by the very sudden arrest of the circulation The left side of the heart was contracted and empty, and the walls collapsed The muscular structure showed signs of extreme fatty degeneration, being speckled and studded with white patches The surface of the heart was covered with a thick layer of fat, extensions of which could be traced in the very thin muscular walls of the ventricles

REFERENCES — "Therapeutic Gazette," Feb. 1894, "Medical Record," Maich, 17, 1894, "Central f Chir," No 2, 1894, ("Brit Med Journ," March 10, 1894)

#### ETHYL IODIDE.

Dr. S. S Cohen' says. "In any case in which the local effect of iodine upon the air-passages is desired, or in which it is necessary to get a constitutional iodine effect, without resort to the stomach,

the inhalation of ethyl iodide offers a convenient and effective means of accomplishing the purpose. It is thus of use in syphilis, and especially in cases of Syphilitic Inflammation or Ulceration of the Nose. Mouth, and Throat. It is of great benefit in Tuberculosis of the larynx, and in pulmonary tuberculosis, at any stage of the disease, but especially when local stimulation and disinfection are desired. In subacute and chionic Nasal Catarrh, in some cases of Hay Feyer, in subacute Laryngitis and subacute Bronchitis, and in chionic laryngitis and chronic bronchitis, when a sedative, sorbefacient, and disinfecting agent is desired, inhalation of a mixture of equal parts of terebene and ethyl iodide gives most satisfactory results. Ethyl iodide is extremely useful in Ozæna and in fetid bronchorihea. It has been employed with apparent benefit in asthma, and in acute croupous pneumonia and acute broncho-pneumonia of various types. In one case of Whooping-Cough in an adult, it was apparently of service. It may be introduced into the Eustachian tubes and middle ear by means of a Politzer bag and catheter To get the full benefit of the drug, it must be used frequently and persistently. Thus, in cases of pulmonary tuberculosis, I have had patients keep up the daily in halation for two, three, or more years. While in cases of active disease the inhalations are sometimes practised as often as every half-hour, in convalescent cases, or in cases of tuberculosis not showing active progress of lesions, the intervals are proportionately lengthened. Two hours constitute the average interval. Three times daily are sufficient in some cases. Some patients can inhale the vapour of ethyl iodide for ten or fifteen minutes without experiencing unpleasant effects. Others feel slight vertigo after inhaling for a minute or two Ordinarily, I tell the patient to inhale for five minutes, unless vertigo is produced.

REFERENCES.—"4 Medical News;" "Medical Record," Nov. 4, 1893. FERRATIN.

This is the name given by Piof. Schmiedeberg, of Strasburg, to that combination of iron which is found in the normal tissues, and which is stored up in the latter as a reserve from which may be drawn for the formation of blood. Piof. Schmiedeberg has succeeded in producing this substance by artificial means, in the form of a fine powder of red-brown colour like oxide of iron. Two forms of this substance are known to commerce: the one simple and insoluble in water, the other is a sodium compound which readily dissolves on stirring after being allowed to stand for a little time in water. (N.B.—The latter must be as free as possible from lime, otherwise an insoluble calcium compound is formed.) Ferratin, in contradis-

tinction to those compounds of iron hitherto in use, is readily assimilated and does not produce any unpleasant disturbances in either the gastric or enteric functions, even when used for a lengthy period, indeed in some cases its exhibition seems to produce improvement in the appetite and conduce to regularity in defecation. As a portion of the substance is decomposed by the acid gastric juice, and also by sulphuretted hydrogen, a sufficient quantity of ferratin must be ingested to leave an overplus in the bowel-tract, so that the organism may pick up as much as it requires There is no necessity whatever to anticipate overloading of the organism with the iron, as absorption and excretion appear to be mutually controlling Excretion does not take place through the kidneys. The daily dose for children is grs. 14 to 8, for adults, grs 15 to 22 Acids should be avoided, but no other ascetic restrictions are necessary. Prof Schmiedeberg points out that ferratin is first and foremost a food, and its use is indicated in all cases in which nutition and the formation of blood are unsatisfactory. For the present its therapeutic uses must be limited to those of other iron compounds, though further information on this and other points is promised

REFERENCE.—""Centialblatt f. klin Med, No. 45, p. 953, 1893.

#### GALLANOL.

This white crystalline compound is derived from tannin and aniline. It is chiefly indicated for external application. It causes no irritating effect upon the skin, to which it may be applied in the form of powder. It has been used with advantage in cases of **Psoriasis** and **Eczema**, in the form of a pomade with soft paraffin basis, and it is said to be preferable to chrysophanic and pyrogallic acids

A recent number of the "Lyon médical" contains the report of a series of exhaustive experiments by MM P. Cazeneuve, Rollet, and Nicolas to ascertain the germicidal value of gallanol. The action of the drug was tested on five microbes, that of anthrax, the Staphylococcus aureus, the Bacillus pyocyaneus, the Eberth germ, and the Bacillus coli communis. The experimenters arrived at the conclusions that gallanol in excess completely destroyed the vitality of the microorganisms, that in a relatively weak solution their development was diminished, and that in an attenuated solution, while their growth was not materially affected, their pathogenic powers were destroyed. It was shown that the drug was an invaluable remedy in the vegetable parasitic diseases; while destructive to the micro-organisms, it was perfectly non toxic to the general system. Gallanol possessed such active germicidal properties that there was no doubt that it could be

employed with great benefit in the infectious diseases as an abortive remedy

RIFFRENCE - "Pharm Journ and Transact,' p 888, 1893, "New York Med Journ," March 24, 1894

#### GLYCERO-PHOSPHATES.

Di A Robin' has employed the glycero-phosphates of calcium, sodium, potassium, etc., either alone or in combination, administering them by the mouth or by subcutaneous injection

In a case of Neurasthenia he found that subcutaneous injection of 4 grains glycero phosphate of calcium increased not only the total solids in the urine, but, individually, the urea from 23 5 to 31 73 per cent, the co-efficients of nitrogen oxidation from 80 7 to 84 per cent, the co-efficients of sulphur oxidation from 87 to 90 per cent, as well as the proportion of chlorides, sulphates, lime, magnesia and potash. On uric acid it does not appear to have any appreciable influence, and it affects the quantity of incompletely oxidised phosphorus only to a slight extent, tending, if anything, to lower the proportion

As a result of chinical experience he concludes that the glycerophosphates improve the general nutrition of the nervous system, and are particularly indicated for Nervous Depression, Phosphatic Albuminuma, and Phosphoruma.

REFERENCE. - 1" Therapist, August 15, 1894.

## GRINDELIA ROBUSTA.

M Jasicwicz has for some time employed this drug in affections of the respiratory tract, and finds that it exercises a remarkable action in **Dyspnœa**. He is not prepared to say that it has any utility in bronchitis, but asserts it possesses real value in disorders of nervous origin, as **Asthma** and the croupy cough of **Laryngismus Stridulus** in a word, it is valuable in all the spasmodic phenomena of respiration, its action being comparable to that of belladonna, with the notable exception that it never develops toxic effects. It is further observed that the action of grindelia robusta is more rapid than that of belladonna.

REFERENCE .- " Mercredi Médical, Dec. 7, 1893.

#### GUAIACOL.

Some very interesting experiments have been undertaken by Drs. M. G. Linossier and M. M. Lanois' in respect to the absorption of guaracol by the skin. These experiments give undoubted proof that guaracol is much more readily absorbed into the system after being painted on the skin, than it is when inhaled by the mouth. Thus, "A

napkin, impregnated with guaracol, was held from ten in the morning until four in the afternoon before the mouth of a young patient convalescent from **Typhoid Fever**, who showed very marked thermic elevations in connection with subcutaneous abscesses. At the end of that time, the unine contained only or in 1,000 of guaracol Several days afterward the right thigh was painted with 30 grains of guaracol, many precautions being taken to prevent pulmonary absorption, and the painted part immediately covered with an imperimeable fabric. During this time the patient breathed behind a screen. Six hours after the painting the urine showed o 9 in 1,000 of guaracol, and the temperature had fallen two degrees

The extent of the surface on which the guaiacol is painted also produces a great difference of effect. In the same patient 30 grains were painted first on a surface of a hundred and eighty square centimèties, and afterward on three hundred square centimètres. In the first case, after three hours, the unine contained 9 grains of guaracol, and the second, after two hours 33 grains in 1,000

Absorption seemed to be more rapid on the thorax than on the limbs, in this respect, certain conditions also must be taken into account, such as age, sex, nature of the skin, etc. After repeated experiments the authors have come to the following conclusions (1,) Guaiacol applied by painting is absorbed by the skin, and this absorption is produced, at least in a great measure, by its vaporous state, (2,) The absorption is very rapid, fifteen minutes after painting, the medicament may be detected in the urine During an hour and a half the proportion increases little by little, and attains its maximum in from an hour and a half to four hours. The elimination is nearly complete in twenty-four hours, (3,) After twenty-four hours the total quantity of 55 5 per cent of guaracol may be found, after the skin has been painted with from 30 to 60 giains of guaiacol. The absolute quantity found in the urine has been as much as 32 giains after an application of 60 grains, and 50 grains after an application of 150 grains, (4.) Cutaneous absorption is such then that it permits of saturating the organism without recourse to the digestive or subcutaneous 1outes

In respect to the external application of guaracol, Scrolla, Bard and other physicians use pure guaracol, while others, like Desplats, mix it with glycerin or alcohol. In several cases of advanced Phthisis, a marked reduction of 2° has been obtained by painting the entire surface of the front of the thorax with pure guaracol. Unfortunately, the effects of this treatment are only temporary, not lasting more than three or four days. Sometimes, also, applications of this kind pro-

duce a marked rise in temperature—in one case of 2°. It is necessary, then, in making use of this procedure to ascertain the susceptibility of the patient, and to use at first small and then progressively large doses. There have been of late years interesting attempts in the employment of this procedure. Casasovici and Milon Sigalea have used guaracol mixed with tincture of rodine, in the treatment of Pleurisy, in the following proportion . Tincture of iodine, 385 grains; Guaiacol, 75 grains. This quantity is used in a single application, and the diseased parts are thoroughly and extensively painted with it every night. These applications cause a considerable reduction of temperature, profuse perspiration, and an increased flow of urine, followed soon after by complete resorption. These results seemed to have been obtained particularly in one case, where there was abundant Pleuritic Effusion on the left side, in which tapping had not been followed by any relief, but had caused a considerable rise in temperature, by the application of jodized guaiacol, the fever disappearing in a few days and the effusion becoming resorbed

M. Desplats has recently conceived the idea of applying guaiacol in the treatment of painful Rheumatic Inflammation of the Joints, after having observed a case in which applications of guaiacol had been used with excellent results. He has used a mixture of equal parts of guaiacol and pure glycerine. The joints were thoroughly painted with this mixture and afterward covered with a dry dressing. In one case of acute theumatism and in three others of arthritis deformans with sharp pains, the results were excellent. The pain was completely subdued, and in the first case the patient recovered rapidly. This procedure has recently been employed in applying guaiacol for Articular Neuralgia of the shoulder, which was very painful, in a tuberculous patient, who experienced marked relief. It is easily employed and not dangerous, if the indications mentioned are conformed to.

There is a difficulty in masking the odour of guaiacol. Da Costa thinks that oil of cloves is, on the whole, the best to employ for this purpose. A dose of 15 to 30 drops, either alone or mixed with glycerine or other excipients, is painted on the surface and then rubbed in with the hand, the part being immediately covered with wax paper or oil-silk.

Stolzeburg<sup>2</sup> reminds us that its action is accompanied by profuse sweats, and that it is undesirable to continue it for any length of time.

REFERENCES.—"" Union Médicale," April 1, 1894; "" Berlin Klin. Woch." No. 5, 1894.

## LACTOPHENIN.

This is distinguished from phenacetin only by the fact that a lactic-acid replaces the acetic acid radicle in connection with ammonia. It is a beautiful crystalline powder, of slightly bitter taste, soluble in 330 parts of water. It has been favourably reported upon by Prof. R. von Jaksch as an agent useful in **Typhoid Fever**. He states that it has an uncommonly calming effect on the typhoid patient. Delirium vanishes, the senses become clear, and, without exception, the patients rejoice in a subjective healthfulness such as von Jaksch has until now never observed under any other mode of treating typhoid. It was also noted that hunger soon occurred in all cases, in fact, most of them as soon as lactophenin had been given a few days, and they were speedily cured.

The dose of lactophenin is 7 to 15 grains, and was administered by von Jaksch in starch capsules

Dr Jaquet<sup>a</sup>, of Basle, states that lactophenin is an agreeable and reliable antipyretic effecting a distinct and persistent depression of temperature when administered in as small doses as 50 to 70 centigrammes, even in cases of stubboin **Erysipelatous Fever**; and at the same time ominous or unpleasant symptoms never intervene

REFERENCES — " "Centralblatt fur Innere Medicin," Maich 17, 1894, 2" Medical Age," Aug. 25, 1894

#### LAPPA OFFICINALIS.

This drug, which for a considerable period has enjoyed a somewhat enviable reputation among our Eclectic brethren, is now receiving general attention because of its supposed effect upon the genitourinary apparatus. It is held to be a regulator of all menstrual irregularities, and a valuable adjunct in the treatment of **Chlorosis**. In **Amenorrhæa** it is claimed as a remedy second only, if not equal, to pure apiol Indeed, "regardless of sex it appears to regulate the strength and functional operations of the entire sexual system." It is a general tonic, and may be utilized as an important constituent in alterative compounds. Moreover, it is an excellent synergist to salix nigra.

REFERENCE.-" Medical Age," March 10, 1894

## LAWSONIA INERMIS.

In the April number of the "Archives de Médecine et de Pharmacie Militaires" M. Ehrmann, a military pharmacist, publishes a study of this plant, the hanneh of the Arabs, who look upon it as a panacea. The author briefly enumerates the uses of the plant in Arabic medicine. **Fissures** are treated with a mixture of powdered

lawsonia and powdered alum Chancres and other ulccrations are covered with the powdered plant, and the itch is treated in the same way. The drug is employed topically as a remedy for engagement of the lower lumbs complicated with ulceration. As an application to wounds it is considered tonic and astimeent. Wounds with great loss of substance are treated by means of quantities of the plant, and the dressing is renewed once in three days. Contused wounds are treated with the leaves beaten and moistened with a little water. Migraine is treated with poultices containing the seeds and black anise. Diarrhea is cured with a weak decoction of the plant. The flowers, in infusion. are remedial in migraine and in bruises; a perfunied oil prepared from them is used as a cosmetic. An Arabian remedy for Sterility consists in smelling of the fresh flowers. A few leaves of the plant cast into a cup of boiling water form a drink which is believed to ward off all the unple sant consequences of abortion. The bark, in decoction, is used for Jaundice, Inflammation of the liver, Calculous Affections, Leprosy and Diseases of the Spinal Cord. The fruit is considered an emmenagogue.

REFERENCE.—" New York Med. Journ," May 12, 1894.

This is another substitute for iodoform, brought forward by Schenzengler. The chemical name is "meta-iod-ortho-oxy-chinolinana-sulfonacid." It is an iodine preparation, at the same time possessing the properties of a phenol and the important characteristic attributes of a chinolin derivative. Physically it is a yellowish powder, consisting of minute crystals and resembling iodoform, but having no odour, and only slightly soluble in water or alcohol, but forming useful emulsions with oil, collodion, etc. As a powder it is very serviceable when somewhat diluted, and with metals it forms valuable salts, the calcium salt, for instance, being insoluble in water, and a very suitable substance with which to impregnate gauze. Loretin is non-poisonous, and no untoward effects have followed its use after operations, or when used for ulcers.

Reference.—""Wien. Allgem. Med Zeitung," No. 47, 1893.

#### MAGNESIUM SULPHATE.

Dr. J. Percy Wade, at the suggestion of Dr Robes, has made a study of the purgative action of magnesium sulphate when adminis tered hypodermically. In selected cases he injected sufficient of a 2 per cent solution of the salt to represent 1.86 to 4.5 grains. He found that one small dose, followed in a short time by a second small dose, proved more effective than a single large dose. The injections

caused no unpleasant local or constitutional disorder. The subcutaneous injection of magnesium sulphate to induce purgation would seem indicated in cases of **Gastritis**, when a purgative is required and the stomach rebels, in abdominal surgery, when the administration of a purgative by the mouth would be likely to cause vomiting, and in cases in which consciousness has been lost and swallowing is not possible

REFERENCES — "Practitioner,' April, 1894, "Medical News," (Philad), p 104, Jan 27, 1894

#### MALACINE.

This is derived from the salicylate of phenacetin, and has been brought forward as an analysesic in cases of Rheumatism, Neuralgia, etc. The usual claims are made for it respecting harmlessness of effect and excellency of results

#### MYRRHOLINE.

This is a solution of myirh in its own weight of oil. It is said to have been found useful in **Tubercular Laryngitis**, given in capsules each containing 3 giains of myriholine, and from  $4\frac{1}{2}$  to 5 grains of creasote. An ointment of 1 part of myriholine and 2 parts of vaseline is reported to act favourably in cases of **Eczema** about the nostrils

REFERENCES — "Revue internationale de bibliographie médicale pharmaceutique et vétérinaire", "New York Med Journ.," July 21, 1894

#### NAJA TRIPUDIANS

At the present moment, when organic extracts, conceining the physiological effects of which we have no definite knowledge, are so largely employed, it is curious that the serpent poisons are so much neglected

The poisons of the lattle-snake and cobia (crotalus and naja) have such a decisive action on the human body, and produce effects that are so peculiarly their own, that their use in some of the more serious disturbances of organic life could easily be prognosticated, if they had not been already tested. There is no fact better proved than that dilute solutions of serpent, venom are capable of producing physiological effects even when given by the mouth, and very rapid effects when such solutions are applied by hypodermic injection or to abraided surfaces on the skin

Dr John W Hayward<sup>r</sup>, whose article on Crotalus is the most complete work of reference on this subject in any language, remarks that "the sudden and extreme coldness and blueness (which follows the seipent's bite), the collapse, choleraic state, cramps and diarihoea,

and vomiting, embarrassed respiration, scarcely perceptible pulse, suppression of urine, and speedy death, or consecutive tever, afford very strong evidence in favour of the use of crotalus in many cases of, at least sporadic, if not true Asiatic cholera, and it will certainly be indicated when the attack has resulted from septic influence."

The following paragraph which appears in the "Medical Age," is of some interest in this connection: "A L. Sandel, M B., Municipal Commissioner, Calcutta, and late medical officer to the local government, Bengal, declares the empirical practitioner in India has wonderful success in combating the ravages of Cholera. Case after case given up by the faculty as hopeless is taken up and successfully treated by him . . . I managed to elicit the fact that the powerful agent employed subcutaneously was a functure of which the the poison of the cobra formed the sole base. . . . Later, I discovered a woman in possession of a small supply of the fincture, and her success in freating cholera cases was, on a smaller scale, as striking as his

"I could not help reviewing the astounding fact that many eminent medical men of this city repeatedly found in their practice that cases of cholera given up by them as hopeless were cited, provided a certain charlatan was called in and permitted to moculate his mysterious counter-poison, yet not one thought himself called upon to investigate the subject. I am prepared to avouch, on the honour of a professional man, my thorough conviction of the repeatedly successful treatment of hopeless cases of cholera by the moculation of the sufferer with cobra venom."

Among other disorders in which crotalus and naja in their dilute form have been used with great success are Yellow Fever and Septicæmia

Recent experiments made by Dr. Chas B. Ewing (see also article "Blood Serum," p. 12), prove that when an animal is killed by serpent venom, there is an extraordinary diminution in the natural germicidal power possessed by the blood, and that this accounts for the rapid putrefaction of animals so poisoned. It would be of great interest if further experiments were undertaken to determine whether any increase of the germicidal power of the blood takes place when the virus is injected in its attenuated form. Such action is not improbable, for the experiments with calcium chloride (vide p. 15) show that while full doses diminish the coagulability of the blood, smaller doses increase it. If this were the case it would give us a working hypothesis by which to account for the actual good results which have been witnessed both in septicæmia and cholera by the use of attenuated solutions of ser-

pent venom. It would of course be necessary to compare the germicidal action of blood taken from an animal debilitated by some septic disorder, both before and after the administration of the serpent venom. It is not to be expected that either serpent venom, or other drug or poison will increase the germicidal power of the serum in the healthy animal; but it is possible to believe that when the organic centres upon which this power depends are weakened, the agent which has the power to paralyze them has also the power to give them the stimulation which they need. A i to 1000 solution of both crotalus and naja (prepared with glycerine) are easily obtainable, and it would be of great interest if fuither experimental and clinical evidence could be obtained on these points

REFERENCES.—" "Materia Medica, Physiological and Applied", "Medical Age," Jan 1, 1894

# NAPHTHOLATE OF SODIUM (Microcidine).

This is the product of sodium hydrate or  $\beta$ -Naphthol It is recommended by Cozzolino of Naples as a valuable Antiseptic and antisuppurative in Ear and Nose Diseases. It is odouiless, unaltered by contact with instruments or tissues, soluble in water in the proportion of I to 3, forming a brownish solution when strong, but is alkaline in reaction, and nearly colourless and tasteless in the usual 3 to 4 per cent solution. The powder should be kept from the light, but the solutions demand no precautions Experience in other medical fields has shown the 3 per cent solution to be as efficacious as I to 2000 sublimate solutions, and in the ear Cozzolino has found it twice as prompt in ending suppuration as boric solutions, using it by irrigation to secure full washing away of all discharge. In the nose he employs it in 5 to 2 per cent solution or in a weak ointment, and claims brilliant results for it here, as well as in tonsillar troubles.

REFERENCES.—"Annales de l'Oreilli," Nov. 1893, "Therap Gazette," May, 1894

#### NEURODIN.

This is the registrable name applied to acetyl-p-oxyphenylurethan, a substance which has been manufactured as an "antipyretic and antineuralgic". The usual claims are made for it in respect to efficacy and freedom from unpleasant symptoms.

#### NITRO-GLYCERINE.

Relief of pain in a case of **Sciatica** has been obtained by the use of I drop-doses of the I per cent solution of this iemedy iepeated three times a day, by Dr. Laurence.\* This was evidently a case of pure neuralgic sciatica, in which the stimulation of the circulation relieved

the exhaustion of the nerve. The remedy would not be likely to prove of benefit in scratica of the rheumatic type.

REFERENCE - "Revista de Ciencias Medical de Barcelona."

## NUCLEINS (The).

Experiments have been made with nuclein obtained from yeast, eggs, the spleen, the thyroid gland, and the testes, and all of them have been found to be distinctly bactericidal. It has been demonstrated that the germicidal constituent of blood serum is a nuclein which is undoubtedly furnished by the multinuclear white corpuscles. When it had been shown that the nucleins were germicidal, it remained to be seen whether or not they might be used to prevent or arrest the growth of germs in the animal body.

Dr. Vaughan in an address delivered before the Illinois State Medical Society, stated that in tuberculous patients the effect of repeated injections has been a lowering of the temperature. He has used daily injections of the nuclein for six months of more without observing any injunious effects from their continuous use. In twelve cases of Membranous Amygdalitis he employed the nucleurs alone with good results. the fever disappearing within twenty-four or forty-eight hours at the most. In four cases of Streptococcus Diphtheria good results were also obtained from their employment. Still another case where it was used successfully was that of a man who had been under treatment for an Indolent Ulcer of the leg. After other measures had been tried, the nuclein was used alone, and 80 minims of a 2 percent solution of yeast nuclein were injected into the tissues around the ulcer. Eight injections were made, and the ulcer healed perfectly. I wo months have passed since the last treatment, and there has been no return of the trouble

REFERENCE.—"New York Medical Journal," June 16, 1894.

#### NUX JUGLANS.

The leaves of the Walnut Tree made into a decoction and drunk by the cupful as a tea, have long had a popular reputation in the treatment of **Scrofula.** Washes and baths of the same decoction are also used to aid recovery

G. P. Rodionoff, of Moscow, on the ground of extensive observations of five years' duration, recommends the adoption of this mode of treatment, which has yielded excellent results in his hands. He finds it very beneficial for the eruptions and enlarged glands.

REFERENCE.—" "Meditzinskoie Obozrenie," No. 2, 1894.

#### OXYGEN.

- Mr J N Pitt's conclusions on the use of this agent are as follows :-
- (1,) The inhalation of oxygen is of marvellous value in some cases of severe **Pneumonia**, especially when there is much lividity and cardiac failure, and at the crisis

It fails in other cases, and the writer is inclined to suggest that where the condition is one mainly of Cardiac Failure and collapse, more benefit is obtained than in cases where the serious condition is especially due to a wide-spread cedema or Bronchitis; but on this difference between the two classes of cases he would be glad to learn the experience of others

Some cases of-severe bionchitis and Asthma have however, been benefited by oxygen — In one case of acute upon chionic bionchitis in an elderly lady, he saw some, though not very marked, relief of the dyspnœa

- (2,) In cases of Empyema, Pneumothorax, and Pleuritic Effusion, great relief can be afforded to the dyspnœa and cardiac failure until operative measures are undertaken
- (3,) Cases of feeble patients with Phthisis may be relieved, but more often there is no marked change
- (4,) Cases of weakly convalescents and feeble cardiac cases will often derive great benefit, and inhalations may be given periodically for weeks, but oxygen will not restore to health, it must simply be used as an adjuvant
- (5,) Cases of **Chlorosis**, pernicious anæmia, and leucocythæmia, receive great temporary benefit, but the oxygen must be supplemented by other drugs
- (6,) Conditions of asphyxia and lividity from respiratory engagement due to cerebral failure, and also coma from various causes, may be relieved
- (7,) Its value in unæmia, though insisted upon by French writers, is still problematical.
  - (8,) It may be of value in diminishing the risks of anæsthesia

REFERENCES — "Medical Press and Circular," January 24, 1894 "Therap Gazette," March, 1894

# OXY-VASELINE (or Vasogene).

This substance resembles vaseline, but it forms with water, a permanent whitish emulsion. It has a peculiar but not very disagreeable odour and taste

Bayer states that it is perfectly innocuous. It is claimed that the substance contains the active principles of hydrocarbons which are frequently used for ordinary vaselines.

Bayer describes a number of cases treated with iodoformated and creasotated vasogene, but they give the impression of claiming too much for the excipient. We expect to hear more of this agent from a commercial standpoint.

#### OZONE.

Dr. Thompson of New York has made a number of experiments with ozonizing agents, both given by the stomach, and administered by direct injection into the intestine or the blood

He concludes as follows :--

- (1,) When injected in the circulation in full strength i.e., 15 volumes per cent —they have a very destructive action upon the blood, thereby ultimately having the effect of reducing rather than of oxidizing agents for the tissues.
- (2,) Acting through the stomach or intestine, they may similarly affect the blood, and in addition they destroy the gastric and intestinal mucous membrane.
- (3.) Given in medicinal doses by the stomach, their only benefit, if any, consists purely in their local action in the alimentary canal, in possibly preventing abnormal fermentations.
- (4,) If so used, care should be exercised, owing to the great variability in strength of different preparations.
- (5,) Ozone is of no real value to the tissues, whether inhaled or di unk in fluid preparations, and it may be exceedingly harmful.

REFERENCE .- " Medical Record," March 3, 1894.

#### PENTAL.

At the Kaiser Friedreich Children's Hospital, Berlin, chloroform and pental have been the only anæsthetics used during the last twelve months. Phillip states that local anodynes having been found impracticable in the case of children, the following were found to be the principal advantages of pental. Extraordinarily rapid narcosis: rarity of a period of excitement, which, if present, ceased with absolute narcosis; immediate recovery of consciousness after removal of the mass; and absence of any unpleasant after-effects, such as are caused by chloroform. No action on the heart was ever observed, but in some patients arrest of respiration and cyanosis occasionally appeared, when removal of the mask sufficed to restore the natural colour. The author attributes the cyanosis, not to any toxic action on the respiratory centre, but to tonic contractions of the diaphragm and glottis. In twenty-one cases the arme was subsequently examined for albumin, but only once was a trace found, which disappeared on the third day; this occurred in a tuberculous child after a prolonged operation. The majority of the operations lasted from ten to thirty minutes, from thirty to sixty cubic centimètres of pental being required

He considers that pental is less dangerous than chloioform, and freer from after effects. It should, however, be used with all the precautions usual in the case of the former anæsthetic

REFERENCE —"Zeitschrift f. Kinderheilk" Bd 11i.

#### PEPSIN

The value of this drug as a therapeutic agent in *sūrgical* practice forms the subject of an article by Dr Thomas O Summers \*

Pepsin possesses the power of separating non-vital from vital tissues, the *débris* of cell action from the cell itself. "No one," says Dr Summers, "who has not seen the change produced by the thorough peptonization of the whole surface of a jagged, lazy, indolent **Ulcer** that has resisted every effort to excite granulation and awaken the dull vitality of the surrounding tissues can fully appreciate the immense possibilities of such an agent. The pale, livid edges light up with the reddening fires of vitality, wavelets of granulation swell up over the surface of the lesion, and soon healthy tissue reaches out cellular arms across the chasm and repair is rapid and complete."

It has also been used in **Eczema** with very remarkable results, the skin being thoroughly saturated with pure pepsin. The *saturation* of the skin, and the purity of the pepsin are points which the author strongly emphasises. The author has used soluble bougies prepared with pepsin with very great advantage in the treatment of **Gonorrhæa** recommended by Dr. Summers —

(r,) Wash out the urethra thoroughly (always after unnating) with plain hot water, as hot as may well be boine; (2,) With a syringe having a soft rubber, conical-shaped nozzle inject the following:—

Injection No 1—

M. Sig Inject every three hours the first day.

Injection No. 2-

M Sig Inject every three hours the second day

After this, alternate the prescriptions until entirely cured, using the ordinary dietetic measures indicated in such troubles

REFERENCE.—" "New York Med. Journal," Feb. 3, 1894

#### PHOSPHORUS.

Di. Q. Thornton, after recounting the disadvantages of phosphorus in the vitreous form, suggests the use of the amorphous or red variety. This is made by heating the vitreous variety to 250° C in the absence of air, and possesses the following advantages over the official variety. It does not readily undergo change at ordinary temperatures, it is almost entirely without taste or odom, therefore it can readily be made into pills at a moment's notice, it is free from irritant or caustic effect, consequently it is far less hable to give rise to irritation or inflammation of the gastro-intestinal and gento-urmary tract, but its greatest advantage lies in the fact that it is non-toxic, and therefore far safer

That it has the same physiological effect as ordinary phosphorus seems to be proved beyond doubt by Kelly, who, while experimenting upon himself to determine if it was toxic, experienced the full physiological effects of vitreous phosphorus.

#### PHULLUAH.

Mr. E. C. Feddell' describes this as an only substance obtained from a plant that grows wild on the hills about Nani Tal. In its fresh state it resembles small white balls of about the size of areca nuts. It melts on exposure to heat. When kept for some time in its liquid form, it becomes of a duty-brown colour. It is largely used among the tribes of the hills for the cure of frostbites and chilblains. The author has found the topical use of phulliah very beneficial in rheumatism, sprains, sciatica, and chilblains, and he is inclined to think that it would do good services in cases of gout, but as yet he has not had the opportunity of giving it a trial. He adds that it has never failed to produce the desired effect where other local applications have been practically valueless. Its action seems to him to be **Stimulant**, **Emollient**, powerfully **Anodyne**, and **Antiseptic**. It is best to heat the crude drug and then use it like an ordinary limiment by friction.

The writer describes a case of Hemiplegia, where rapid results followed the use of phulluah and masaage.

RLFERENCE -1" Indian Med. Record," Nov 16, 1803

#### PIXOL.

This is another new disinfectant, but it differs from the rest in the fact that it is *not* a proprietary article; it is cheap and easily manufactured.

It is prepared by disolving a pound of green soap in three pounds of tar and slowly adding a solution of a little over three ounces and a half of either potash or soda in three pounds of water. At the time of using, I part of the syrupy liquid thus formed is added to 19 parts

of water, forming a 5 per cent solution of pixol, and it is used of this strength for disinfecting linen and for washing the hands, for the disinfection of dejecta a 10 per cent solution is recommended. Such a solution has been proved to be fatal to the *Bacillus anthracis*, to the bacilli of typhoid fever and cholera, and to the cocci of suppuration

This information is afforded in a supplement to the "Army Medical Journal" (Russia), by Di Eberman

## POTASSIUM BICHROMATE.

In an article on this diug in our last issue (p 33), after describing the valuable results we had obtained from it in various respiratory troubles, we stated that "in chronic gastric catarrh with yellow coated tongue, and local tenderness over the epigastrium, it is one of the most valuable of remedies, and many cases closely resembling gastric ulcer have cleared up under its use"

This paragraph is confirmed by the paper which has since been read before the International Medical Congress at Rome, by Prof Frazer, of Edinburgh

Prof Frazer's paper consists of a series of carefully recorded cases proving the undoubted efficacy which this salt possesses in the form of chronic gastritis, bordering upon gastric ulcer. He also records a series of ten cases diagnosed as **Gastric Ulcer**, which yielded very satisfactory results with this remedy

The following is a summary of the mode of treatment the doses administered in the above cases have varied from 12 gr. to ½ gr. (from 0 005 to 001 gramme) third daily, it will be observed that in the greatest number of the cases the smallest of these doses was administered, and was found sufficient. The dose should be given during fasting, and in as empty a condition of the stomach as possible The administration was effected in the form of pill or solution, and no difficulty was experienced by the patient in the taking of a simple solution in water, although occasionally, and especially with the larger doses, flavouring agents were added, such as syrup of tolu or An examination of these records shows that bichromate of potassium is capable of relieving, and often in a short time of removing, the entire group of symptoms—if we except constipation and anæmia—encountered in Dyspepsia, and especially pain, nausea, vomiting and gastric tenderness Taking into account the supposed relationship between disorders of the alimentary canal and anæmia, it might by some have been expected that an agent which is decidedly curative in dyspepsia would, at the same time, excit a cuiative influence in anæmia Several of my cases, however, have shown that this is not so, and have thus given evidence that the therapeutic benefit is the result of an action restricted to the stomach. Case 18 (Group 1) serves to illustrate this. On Oct. 12th, when treatment with bichromate of potassium was commenced, an examination of the blood showed that the hæmorytes numbered 4,300,000, and that the hæmoglobin amounted to 40 per cent. All gastric symptoms had disappeared on October 21st, when the hæmocytes numbered 4,102,000, and the hæmoglobin amounted to 38 per cent. Bichromate of potassium was continued until Nov. 16, and even then, although the patient had for some time been eating well and had gained weight, the hæmocytes numbered 3,700,000 and the hæmoglobin amounted to 52 per cent. On this date ferrous chloride was substituted for bichromate of potassium, and on Nov. 25th the hemocytes numbered 5,000,000, and the hæmoglobin amounted to 79 per cent.

"In a few cases of acute gastric ulceration with hieractemesis in which I have given bichromate of potassium the results were not favourable, as it did not succeed in checking the bleeding."

We miss from Prof Frazer's article any account of the method of reasoning which induced him to use this salt so frequently in the treatment of gastric affections. Our knowledge of its action has chiefly been derived from its poisonous effects upon the workmen engaged in its manufacture for commercial purposes. We find that these workmen suffer from sore throat, the fauces are red and injected, the tongue thickly coated, they have some cructations and frequently suffer from heartburn, they complain of fulness and weight upon the stomach, which is tender on pressure. Most of them suffer from nausea, many from vomiting, while others may even have dysenteric purging.

It does not appear probable, therefore, that an agent capable of producing such symptoms upon healthy men would come to the front as a remedy for chronic gastric catarrh, and gastric ulcer; but this result has happened, and justifies what we have said in the introduction to this section concerning the madvisability of limiting the possibilities of therapeutic advance.

The effects obtained by Piof. Frazer were obviously due to the effect of the stimulant action of the reinedy, which is the reverse of its depressant action. It would be only necessary to increase very slightly the dose mentioned by the author to produce serious aggravation of the disorder, and as practitioners have been so long trained in the belief that the remedial effect of a remedy increases with the dose, mistakes are likely to arise unless the principles governing the application of such remedies are clearly understood.

45

#### PRUNUS VIRGINIANA.

The American wild cherry as a Cardiac Tonic was mentioned by Dr Seymour Taylor in a recent lecture. He says —

"My attention was first called to it some years back by an article in one of the journals by Dr Clifford Allbutt I can reiterate all that he says in praise of the drug. It relieves the flagging and distended ventricle of the chronic bronchitic, it stimulates the flapping chambers of the anæmic, and it increases the muscular tone in subjects recovering from fever and other exhausting diseases. It is also given with great advantage in the irritable 'convulsive' heart of the over-worked man of feeble physique. It is especially useful in dilatation of the right heart, whether as a result of chronic bronchitis or of mitral stenosis. I use it more in private than in hospital practice, and perhaps no drug has brought me so much credit."

REFERENCES — "Clinical Jouin", "Med Record," July 7, 1894.

QUININE (Hydrochloro-Sulphate of).

This substance crystallises in prisms, and makes an amber-coloured solution with water. Its special advantage is said to be its remarkable solubility, one gramme dissolving in one gramme of water. It has been brought forward as the most suitable salt for hypodermic injection by Heinandez Briz. Particulars of the mode of manufacture are not given

REFERENCES — "Rev de Med. y Cir.", "Pract." Feb 22, 1894.

This salt has been brought forward as a substitute for iodide of potassium M. Vogt, states that from clinical trials he found that taste was not very pronounced, and patients took it much more easily than the ordinary iodides. In a case of syphilitic brain trouble M Vogt had been able to control the symptoms in four days without the patient complaining of the annoying effects which in her case had followed the administration of potassium iodide. The new product was applicable in cases where a prolonged treatment with iodine in small doses could not be instituted on account of the individual susceptibility of the patient.

This substance costs about three times as much as the iodide of potassium.

REFERENCES - " Union Médicale," July 4, 1894.

## SALACETOL

This is a crystalline white powder insoluble in water, and containing about 75 per cent of salicylic acid (salol containing about 60 per cent). It passes undissolved through the stomach, but, in contact with the

alkaline intestinal pinces, it slowly releases its salicylic acid, the acetol component being at the same time converted into acctone and eliminated. Salicylic acid appears in the urine within half an hour after the administration of silacetol, and a dose of 2 gims is completely eliminated in twenty-tour hours. The mode of administration plays an important part in the determination of the completeness and rapidity of its absorption. It appears best absorbed and most rapidly eliminated if given in a purgative oil, such as easter oil. The result of trials both in hospital, and in private practice, showed that salacetol given in this manner is most useful in cases of Choleraic Diarrhea and kindred affections.

Dr. Bourget, who has used this agent very largely, finds it answers better than any other remedy, and considers that it is less dangerous than salol owing to the absence of phenol

REFERENCE, - "Correspond Blatt, f Schweizer Acrtze," KMii, No 14.

#### SALUMINUM.

The term "saluminum' is applied to two compounds of alumina with salicylic acid which have been used clinically with good results by Dr. Heymann, of Berlin. One is almost insoluble in water and is called according to the German nomenclature aluminum salicylicum, the other, which is soluble in nine parts of water, is aluminum salicylicum ammonatum, and the solution gives a neutral reaction. The effect of these substances is highly astringent. They stimulate the microus membrane also, and are especially valuable in affections of the mouth and nose. Insuffation of the insoluble, or, better still, of the soluble, saluminum is most useful in Ozæna, and in cases of catairh of the mouth a solution of 20 parts of ammonated saluminum in 30 of water and 50 of glycerine forms a valuable paint for applying to the affected part.

REFERENCE -" Lancet," Aug 8, 1894.

#### SAPOTEN.

This is a glucoside extracted by G. Michaudt from the seed contained in the sapodilla plum, the fruit of Actions Sapota. This tree has a febrifugal bank, and dimetic and aperient seeds. The glucoside was obtained in minute crystals, melting at 240°.

REFERENCE. - "Bull. of Pharmacy," May, 1894.

#### SAW PALMETTO.

The "Chicago Medical Times": in an article on this remedy says, "The fluid extract is a **Nutrient Tonic** in advance of the compound hypophosphites, and has a special action upon the glands of the repro-

ductive organs, as the mammæ, ovaries, prostate, testes, etc., its action is that of a great vitalizer, tending to increase their activity, to promote their secreting faculty, and adds greatly to their size. It is specially indicated in all cases of wasting of the testes, such as follows varicocele or is induced by masturbation, or which is often present in Sexual Impotency. In gynæcological practice it is much used to promote the growth of the mammæ, also in uterine atrophy dependent upon ovarian blight its action is unexcelled. But it is upon the prostate gland that this remedy exercises its best effects. Out of every ten men, nine have enlarged prostate, and one has atrophy of the same Case after case of both morbid conditions could be cited in which, by means of this agent, the size of the prostate was equalized, the difficulty of micturition removed, stoppage, diabbling, lack of force, completely overcome, and improvement in sexual power steady and most gratifying The general nervous system becomes balanced and ieinvigorated"

REFERENCE —" Med Age," March 26, 1894

#### SENECIO JACOBŒA.

This is the common lag-wort, which is a popular remedy for **Menstrual Disorders**, being taken as a decoction as a "female regulator"

D<sub>1</sub> William Murrell having prepared a tincture (I to 10) experimented upon himself, and found no effects were produced by  $\frac{1}{2}$  ounce taken four times a day

He says "I then began giving it to women suffering from menstrual derangements, and found that it answered well in cases of amenorrhoea. My observations have not been confined to the tincture, for in many cases I have employed a I in I liquid extract. I have reason to think that this liquid extract was sometimes prepared from the senecio aureus, but I do not think that the substitution of one species for the other is a matter of any importance, as apparently they have the same action. I have also used with good results the active principle known as senecin, a dark resinous-looking substance, the minimum dose of which is 2 grains three times a day

"I find senecio useful in those cases in which the menstrual function, having been performed regularly for some years, has been suddenly suspended as the result of exposure to cold

"In the majority of cases the period is not ic-established until the drug has been taken for ten days or a fortnight, but in one case the patient, after having missed for two months, came on unwell after six 2-diachm doses. As a rule, the patients were given only I diachm three times a day to begin with, the dose being gradually increased

This precaution, however, is unnecessary, and it is perfectly safe to begin with 2 drachms of the functure, or 20 minims of the liquid extract four times a day. Either preparation is taken without difficulty, and induces neither purging nor vomiting.

"I am satisfied that senecio not only anticipates the period, but that it also increases the quantity. In many cases it relieves the accompanying pain, and not infrequently the headache from which some women suffer at those times. In one instance the administration of the drug was coincident with the disappearance of a profuse leucorthea from which the patient had suffered for many months."

### SENNA.

Di. Kral Deho, of Dorpat, states that the active principles of rhubarb, frangula, and senna possess very close chemical relationship, or are perhips identical. He has experimented clinically with the cathartic acid obtained from senna by Gentz, which he believes to be more constant in its composition and more likely to be pure than that previously obtained by Kelby. He administered it to twenty-one persons, giving adults 2½ grains and children § grain. This dose was somewhat too large. It did not fail in any case. The bowels were moved in the majority of cases in from eight to twelve hours, exceptionally earlier or later. In some cases it caused pain, but it was less likely to do this when it acted slowly. It appeared to act best in obstinate Constipation.

REFERENCES—""St Petersburg Med. Woch,' No. 27, 1893 ("Therap. Gazette," Nov. 15, 1893).

## SODIUM CHLORATE.

Bussaud has obtained very remarkable results from the use of this simple agent in cases of Cancer of the Stomach.

The author thinks it well to anticipate the suggestion of an erroneous diagnosis. In most of his cases, in addition to the classical symptoms, there was a well-defined tumour in the gastric region. After giving chlorate of sodium in daily doses of 12, 14, and 16 grammes for about six weeks, melana and hiematemesis ceased entirely, cachexia disappeared, and the tumour could no longer be felt. Brissaud does not claim to be able to cure all cancers, but considers that there are certain forms which are curable by means of chlorate of sodium. Such are particularly those epitheliomata in which there is no extension of the disease to the liver or other parts, and no complication of the nature of thrombosis or phlebitis. Chlorate of sodium is less poisonous than chlorate of potassium, and is readily eliminated. The daily dose is from 8 to 16 grammes (2 to 4 drachms). Brissaud begins by giving from 8 to 10 grammes in the twenty-four hours, and

if the vomiting and hæmatemesis do not cease he increases the dose till these symptoms are controlled. He gives the drug mixed with 100 grammes of water in teaspoonfuls. The only contra-indication is the presence of albuminuma, even to a slight extent. More than 16 grammes should never be given in the twenty-four hours for fear of bulbar accidents. Brissaud suggests that chlorate of sodium may also with advantage be substituted for chlorate of potassium in the treatment of **Stomatitis**, etc.

REFERENCE.—"Gaz Méd de Strasbourg," May 1, 1894 (But. Med. Jouin," Aug 4, 1894)

#### SODIUM MONOSULPHATE.

Dr Peyson gave 30 centigiammes of white lead to two dogs every day for twenty-three days, and then I gramme per diem for fifteen days, with the result that the urine contained only traces of lead. One dog was extremely ill, to it was administered a gramme of monosulphate of sodium a day, with the result that it was well in eight days Both dogs were then killed, and on analysing their livers it was found that the animal which had taken sulphate of sodium had only traces of lead in its liver, whilst the liver of the untreated dog contained large quantities of lead

REFERENCE.—"Jouin de Méd de Paris," vol. 1 ("Piact", Aug, 1894)

## SODIUM NITRITE.

Gordon Shaipe, from considerable experience with this drug advances the following conclusions —

Sodium nitrite, being stable, may replace the less stable amyl and ethyl nitrites. It dilates all the aiterioles rapidly, and soon relieves the heart. Disagreeable symptoms may be overcome by prescribing it with ammonia water or spirit of chloroform and small doses of morphine. It is most useful in Anginal Affections and in Irregular Heart Action. To obtain most benefit from its use it should be continued some time after all symptoms have passed off. By this means the heart is able to regain its tone and so to repair itself. The maximum dose is 4 or at most 5 grains, and generally I or 2 grains are enough. Graves' disease would appear to be aggravated by it. Bronchitis and asthma are not in his experience benefited by its use.

REFERENCE —"Practitioner," May, 1894

#### SPARTEINE.

David Cerna, publishes an exhaustive article on the therapeutics of this ching. From a careful study of the clinical effects of this

alkaloid be concludes that sparteine is a producament of considerable power as a Cardiac and Renal Stimulant second only, it appears, to digitalis. It is addiced also that sparteine possesses the peculiar advantage of not exerting a cumulative action, although one observer, Bruen, believes that it has such an action

He considers that failure has resulted from the use of too small a dose. He has given as high a dose as ½ grain every three hours without ill effects.

RLILRENCE -- "New York Med. Jouin," May 26, 1894

## SPASMOTIN (Sphacelotoxin).

This is a poisonous element of eigot, its action is characterized by causing spasms of the small arteries, which may lead to hyaline thrombosis of the latter and to gangrene of the tissues supplied by them, it also has, just as eigot itself, a stimulating effect on the pregnant uterus. Dr. Jacoby, First Assistant in the Pharmacological Institute of the University of Strassburg, succeeded in isolating this substance in chemically pure form.

The method for producing spasmotin is based on its solubility in ether and its insolubility in petroleum ether. The spasmotin is extracted from ergot direct by other and preorpitated by addition of petroleum ether, or the oil contained in ergot is flist removed by extraction, and the spasmotin extracted by ether from the ergot. By both methods the spasmotin is obtained free from oil and other admixtures, in an undecomposed chemically pure state, as a yellow powder of amorphous appearance, it is insoluble in water, in diluted acids and petroleum-ether, but very easily soluble in ether, and in alcohol, acetic ether, benzol, etc. Spasmotin forms salts with alkalies, and may be again precipitated by carbonic acid. From benzol it may be obtained in crystals. The compound may be expressed by the formula  $C_{20}H_{21}O_{9}$ .

The pharmacological effects of cigot are inherent in spasmotin and its soda salt. The latter is suitable also for subcutaneous application, as it does not produce local disturbance of any kind.

Experiments, made in the obstetic clinic of Piof Di. Freund in Strassburg, proved that spasmotin yields the same effects as are obtained with social commun. Doses up to one gramme may be given without hesitation; but the doses employed in satisfactory experiments so far have ranged only from 0.04 to 0.08 grin.

RLIERINCE.—"Bulletin of Pharmacy," May 1894; "American Therapist."

## SULPHANILIC ACID.

Professor Valentin, of Berne, warmly recommends sulphamilic acid ( $C_6H_4NH_2$ ,  $SO_2$ , OH) as a palliative means in the treatment of **Acute Catarrhal Rhinitis**, **Laryngitis** and **Otitis Media**. The acid should be administered internally, from 2 to 4 grammes once a day. The author, however, prefers to prescribe it in the shape of a neutralized solution after the formula —

- R Acıdı sulphanılıcı purissimi 10 grms | Aquæ destillatæ 200'0 grms. Sodii bicarbonici 8 0 grms |
- M. ft Solutio. Dose —From 40 to 80 grammes daily, to be taken either at once, or in two doses

In Acute Coryza, in about two hours after the first dose, tume-faction of turbinated bodies, thin discharge, and congestion either very considerably decrease or disappear altogether, in Aural Catarrh pain also rapidly subsides, etc. Such relief, however, mostly lasts not more than twenty-four or forty-eight hours after a dose, hence, to prevent the recurrence of the symptoms, a systematic administration of the remedy is required. In the quantities indicated, the acid never causes any unpleasant accessory effects. Instead of the said solution, Merck's "Natrium Sulfanilicum neutrale" may be employed, which preparation is said to be "very cheap (sehr billig)," while being much purer than the ordinary saturated solution.

REFERENCES—"Cornespondenz Blatt fuer Schweizer Aerzte," April I, 1894, "Prov Med Jouin," May I, 1894.

# SUMBUL, (Musk Root).

This is, says the "Medical Reporter," (India) an excellent antispasmodic and Nerve Tonic, in action resembling musk and valerian. In small doses it stimulates appetite, improves digestion, allays irregular nerve action, it is beneficial in depressed or excitable conditions of the nervous system. It may very advantageously be employed in the treatment of Hysteria, Neurasthenia, Neuralgia, functional irregularity of the heart, restlessness, the Insomnia of chronic alcoholism, and Nervous Dyspepsia. As most of these disorders occur in neurotic individuals—especially women—with impaired nutrition, a morbidly sensitive organization, dyspeptic difficulties, and sluggish movement of the bowels, in many instances it may be associated with nervine and laxative remedies. The dose of the fluid extract is from 5 to 30 minims

#### TEUCRIN.

Several observers have reported on the value of this agent when locally injected as a remedy for local **Tuberculosis**.

Mosetig-Moothof ("Wiener medicinische Piesse") has been giving the drug a fair trial and is highly satisfied with the results. The medicament is used subcutaneously at the base of the degenciated tissue, and cures by causing sloughing of the tubercular parts. Great judgment must be exercised, it is said, both as to the quantity of the drug used and as to the number of applications; one is to be guided entirely by the slowness or rapidity of its action. The author has never seen any systematic reaction to the drug exhibited, and thinks that, employed with care, it is a very sale and sure remedy for the extripation of local tuberculous disease.

## THEOBROMINE.

Attention has been called to the value of this drug in Mitral Diseases by Hallopeau. Its main result appears to be the removal of the ordenia of the limbs. It appears to produce some nausea and tendency to syncope, but this might be obviated if the agent is given in small doses and gradually increased.

REFERENCE .- "Union Médicale," Jan. 30, 1894.

#### THUJA OCCIDENTALIS.

This has been mentioned by Di. C L Dana, as an excellent remedy for Cystitis. He gives 5 drops of the tincture every three hours

REFERENCE.—" Medical Age," April 25, 1894.

#### TOLYSOL

This is a derivative of tolypyrin brought forward by Bothe, as an analgesic and hypnotic. The taste is unpleasant, and nausea and vertigo are often produced by it.

REFERENCE .-- "Munch. Med. Woch." Aug. 7, 1894.

#### TRICHLORACETIC ACID.

Cozzolino recommends this as the best harmostatic in **Epistaxis** arising, as such bleedings usually do, from the cartilaginous septum. He employs generally a pledget of cotton soaked with represent or 1.5 per cent, solution, and claims slight reaction and prompt cicatrization as the result, far surpassing that following chromic acid or non preparations.

Von Stein,<sup>2</sup> of Moscow, claims that the acid is an ideal **Cauterant**, although more painful than chromic acid, and less active than the galvano-cautery.

He says that the application of the crystals or concentrated solution to a bare or eschared surface prevents all putrefactive changes, almost wholly does away with febrile consequences, and promotes

rapid, comfortable healing. Further, his employment of it in Ozena cases has not only speedily controlled the odour, reduced crust formation, and hastened improvement, but has even led to so decided a hypertrophic tendency of the sclerosing surfaces as to demand at times reduction by decided cauterization. In acute coryza he has employed weak solutions (I to 1000 to 2000) by instillation or spray, with prompt and safe resolution after the brief increase of secretion, and office consequences have seemed especially rare in cases thus antiseptically treated

REFERENCES—""Therap Gazette," May, 1894, "Monat fur. Ohienheilkunde," Jan, 1894

#### TRIKRESOL.

Prof M Chaiteris of Glasgow, says: "The so-called 'crude 100 per cent' carbolic acid is known to consist chiefly of cresols, which are, however, little soluble in water, owing to impurities of the nature of hydrocarbons, such as naphthalene and also pyridene bases. If these be removed, a clear liquid of a pleasant odour results. This liquid, called 'trikresol,' is a mixture of ortho-cresol, metaciesol, and para-cresol. It is soluble in water to the extent of from 2 2 to 2 55 per cent, its specific gravity at 20° C. (68° F) varies between 1042 and 1049, and its boiling point lies between 185° and 205° C (365°—401° F)."

After describing some experiments made upon guinea pigs and the results of bacteriological tests of trikresol and pure phenol, the author says: "It may therefore be concluded that trikresol is a three times stronger germicide than pure phenol, and that it is three times less toxic. Its advantages, consequently, for surgical purposes are very pronounced, and in all probability some combination of it with an alkaline base will in the future be prepared, which may with safety and with profit be administered internally in specific infectious diseases.

REFERENCE —"Lancet," Maich 31, 1894.

#### VALERIANATE OF AMYL.

This is found as a natural product in cider brandy, mixed with the butyrate of amyl. It has an odour identical with that of the russet apple. Its appearance is that of a mobile liquid of the ether type, which it resembles in physiological action. It produces general arterial excitement followed by drowsiness, and if absorbed through the lungs it produces anæsthesia in the same manner as ether

It has the power to dissolve cholesterin, and it is this that in conjunction with its anæsthetic effects has led M. Blanc to suggest its use

in **Hepatic Colic.** It will be remembered that eider has a considerable reputation as a remedy for gravel.

M. Blanc says "It is less prompt than perhaps the ether in Durand's mixture, but it appears to be more lasting and more certain as a preventive. It can be agreeably used in capsules. In cases of dyspepsia, by no means uncommon in connection with hepatic disease, it may produce vomiting, in this case other may be used at the start, or an injection of morphine may be administered Later the valerianate of amyl may be given in 21-grain capsules every quarter or half hour until the crisis is passed. The drug does not act by exciting the secretion of bile, but by terminating the painful spasm of the duct by the anæsthesia which it then produces to a greater or less degree, and by entering into the circulation prevents the concretion of cholesterm in crystals. In applicate colless it acts only as an anti-pasmodic and general stimulant without affects me the calculus itself, although it benefits the accompanying cystitis. Nervous troubles, gastralgic crises, colics of reflex origin (cold), intercostal neuralgias, muscular rheumatism, have been benefited Menstrual colies are relieved and even the flow increased, and in this respect it is superior to apiol, especially as being less excitant The dyspacea, even of Angina Pectoris, diminishes under its use Hysteria it calms the convulsive manifestations, the hypercesthesias and the neuralgias, it benefits the contractings. In Alcoholic Delirium it appears to have been used with success, acting better than morphine. It is very feebly poisonous, 5 or 6 capsules per day of the above mentioned dose can be safely taken. To avoid easing symptoms it is well to previously purge the patient, and if the treatment is to be of considerable duration a milk diet may be prescribed.

REPERENCE. —" Revue de Thérapeutique Médico-Chirugicale, 1894.

# Electro-Therapeutics. A D ROCKWELL, AM, MD, NEW YORK.

The Faradaic Current - There seems to be a tendency to underestimate the general therapeutic utility of the faradaic current

Its quantity is so small as compared with the current direct from the cells, that to mechanical influences alone are attributed whatever beneficial effects follow its use, and therefore it has been urged that other mechanical methods—massage and contrivances for producing

1apid vibiatory movements—are equally serviceable

This opinion proceeds from an incorrect appreciation of the true action of the faradaic current, as well as from a restricted practical experience in the use of it One of the most common observations as to the effects of a thorough general application of the faradaic current, is a relief of muscular tire after prolonged activity, and an increase in the flexibility of limbs that have become sore and stiff after the rest following excessive and unaccustomed muscular exertion not have to search far for a rational explanation of these results

Mechanical effects are undoubtedly important Not, however, as manifested by vigorous muscular contraction, but through molecular agitation sufficient to give passive exercise to both the superficial and the deeper tissues In these cases there is cell exhaustion with circulatory sluggishness, and a deposit of the toxic products of metabolism—all which conditions are more or less benefited by the mechanical effects of the current. It is on this self-same principle that the faradaic current is now applied with such admirable results in chronic congestion and induration of the uterus The blood flow in the congested organ is accelerated A sort of circulatory diamage is established, and a healthy local action more quickly and effectually produced than by any known method While we do not get from the faradaic current, chemical or endosmotic or exosmotic effects, we do witness physiological effects of the most pronounced character, and as these take place only by virtue of the vitality of the tissues, these physiological effects are of chief concern to the physician in the consideration of the nutritional effects of electricity To what extent they are of mechanical origin is a question, but it is evident that we get upon the nerve structure itself-together with mechanical effects —influences of an entirely different character Much has been said as to the progress in electro-therapeutics during the past few years, and in some directions, especially in the realm of gynacology, much has been accomplished. In the use of the galvanic current the advances have been considerable, due in great measure to better apparatus, and instruments of precision. But so far as the fundaic current is concerned, can we say as much? In one respect, yes! The great utility of currents of high tension when applied to low resistances and especially by the bi-polar method, cannot be over-estimated Analgesic, in uterine and abdominal pain, when passed through the low resistance of the mucous membrane, these induced currents of tension are of the greatest service, but so tar as external applications of the faradaic current are concerned, I doubt whether we have advanced much cither in the methods of application or in the efficiency of the apparatus. The coil of twenty years ago--the so-called continuous coil is referred to, with its two thousand feet of wire and its perfect theotome attachment- yielded a current the essential characteristic of which as an aid to nutration, and for general tonic effect has not yet been surpassed. The most important thing in connection with the use of electricity in medicine, in fact the fundamental idea upon which all its therapeuties is based, is its nutritional power. It is this idea which, in connection with Dr. Beard, the writer enunciated many years ago, and upon which he has based almost everything that he has said and written since. As to which of the various manifestations of electricity possesses the greatest efficiency in this direction -that is a question which will take care of itself. Opinions will differ according to the character and extent of one's experience

State Electricity is without doubt a most valuable addition to our armamentarium, and he who makes much use of electricity in medicine cannot afford to do without it. No one who expects to meet the demands of all the varying idiosyncrasies of the nervous system can attord to be deficient in the completeness of his electrical outfit. And yet there are in the profession many who claim proficiency in this department who are deficient both in apparatus, knowledge, and practical experience

Now with a magnificent static apparatus in all its pyrotechnic glory, set in motion and readily controlled by an electric motor, the treatment of a patient is the simplest and easiest thing in the world both for physician and patient, and I should be glad to assure myself that it was the most efficient method of securing the tonic and nutritional effects of electricity. But after years of observation and comparative trial I regret that I cannot come to this conclusion. I say I regret it. In one sense I do, because it has the great advantage of ease of application over the general use of the faradaic current.

But in another sense it is not to be regretted. It would, indeed, be a misfortune if, in order to obtain satisfactory nutritional effects from electricity, the costly and unwieldy static apparatus was an absolute necessity

Those who have not this apparatus and who are debarred from getting it because of its expense, may be assured that the faradaic current will accomplish all that static electricity can possibly do in the way of influencing nutrition

The Sinusoidal Current — The alternating sinusoidal current lately introduced into electio-therapy by D'Aisonval has elicited considerable discussion. The essential feature of this current is, that it has a uniform rise and fall of potential from zero to the maximum, and back to zero again in both directions. For this current it is claimed that it possesses greater penetrating power than the ordinary faradaic current, and that less pain attends the vigorous muscular contractions that it produces. Apostoli's conclusions as to the effects of the alternating sinusoidal current are as follows:—

- (1,) Applied in the intra-uterine cavity, it is always well boine and free from danger
- (2,) Its application is followed by no painful or febrile reaction, and is, on the contrary, generally accompanied by manifest sedative effects
- (3,) It appears to have no marked action upon hæmorrhage as a symptom, but sometimes has a tendency to prolong this symptom.
- (4,) It exercises a very decided effect upon the symptom pain. This action was noticeable from the very first séance, and most often immediately at the end of the séance
- (5,) It is a useful remedy in the treatment of leucorrhœa, which under its action often diminishes or disappears
- (6,) It has no appreciable effect upon hydrorrhœa or fibroma in certain cases.
- (7,) Its influence upon anatomic retrogression in cases of fibroma has not yet been clearly established
  - (8.) It increases the resolution of peri-uterine exudates.

Engleman has devised a faradaic apparatus for which he claims a superiority over ordinary apparatus in range, efficiency and effect, in precision and controllability

The characteristic features of this apparatus which give to the current its controllability and extended range are —

(1,) The use of two motive powers, or the separation of the primary flow through the coil from that which propels the interrupter, in other words, a separation of the forces which serve to produce the interruptions and the current proper.

- (2,) The interrupter, which is characterized by rapidity and controllability (a,) it admits of greater rapidity of interruptions than hitherto known; thus extending the physiologic and therapeutic efficiency of the current, and (b,) the control of these interruptions is perfect, making record and comparison possible.
- (3.) The series of secondary coils, varying in the number of winds and the thickness of the wires used, each of known physical and physiologic power, adapted to its special therapeutic purpose, for reduction and stimulation, for effects on nerve and muscle

Engleman further remarks. While the striking physiologic effects produced by the new currents warrant us to expect valuable therapeutic results, I will merely say that I have been more than gratified by what has been so far accomplished by muscular contraction or interstitial massage in the painless stimulation of relaxed pelvic tissues by the muscle coil, the counter irritation produced by the short time, wire coil, and above all, the sedative effects of the long fine coil, even with interruptions of moderate rapidity. Without entering into details I will only say that the instantaneous relief obtained from the application of such currents in acute inflammatory pain has been surprising and warrants the highest expectations.

The Galvanic Current — Interstitial or metallic electrolysis, as suggested by Gautier, is a subject of considerable interest, and will, it is to be hoped, fulfil the expectations of its author. In this method, the chemical action of the positive pole is utilized, not only for its effects upon the tissue itself, but upon the metal electrodes that are applied directly to, or inserted into, the diseased part

In this way new salts are formed and deposited in the tissues, oxy-chloride of zinc where zinc is used as the electrode, and oxy-chloride of copper where copper is used. It is the cataphoric property of the current which carries or forces these salts, the product of electrolyticaction through the surrounding tissues. The technique of this treatment cannot be entered into here, further than to say that the positive pole is alone used as the active electrode, with a current strength of from 20 to 40 milliampères. Gautier's best results have been obtained in diseases of the endometrium, although it is applicable to other gynacological diseases, such as pelvic exudations and uterine hyperplasia. Other pathological conditions in which this method is believed to be serviceable are anal fissure, ozena, chronic coryza, hypertrophic rhuntis, sebaceous cysts, and chronic urethritis

The Depolarizing Electrode -Another advance in the utilization of the galvanic current is what is termed the depolarizing method of treatment. In 1892 Rockwell described the depolarizing electrode with experimental observations, and in 1893 detailed some suggestive clinical results following the use of the method in various forms of disease

Briefly stated, the idea is, to altogether eliminate either one or the other pole according to the indications for treatment. By having an electrode with resistances in ohms, equal to, or greater than the resistance offered by that portion of the body between the two electrodes, the neutral point is thrown outside the body, which may at will be brought altogether under the influence of either the negative or positive pole

By utilizing the suggestions offered by the very interesting physiological results observed in testing this electrode, it is possible to favourably modify and permanently relieve various conditions that formerly were not only not relievable by the ordinary methods of application, but were positively aggravated

Electro-Diagnosis and Prognosis —At a recent meeting of the New York Neurological Society, the subject of "Electrical Reactions and their value in Diagnosis and Prognosis" was discussed in elaborate detail

The following conclusions, by Leszynsky, embrace in a general way the opinions of those who took part in the discussion —

- (1,) The value of electricity as an accessory method in diagnosis and prognosis of disease of the peripheral nerves is not so universally recognized as its importance demands
- (2,) The result of this procedure often furnishes corroborative and conclusive evidence where only a provisional diagnosis has been made.
- (3,) The necessary technical skill in successfully pursuing such investigations and correctly interpreting the result can only be acquired through special study and practice
- (4,) The use of the faradaic cuirent alone is quite sufficient for diagnostic purposes
- (5,) As a rule, the galvanic current is supplemental to the faradaic, and in the absence of faradaic irritability in nerve and muscle it is of the greatest service in prognosis
- (6,) The discovery of the reaction of degeneration is not an essential feature in the diagnosis as to the situation of the lesion
- (7,) The peripheral nerve fibres possess an inherent power of regeneration which seems almost unlimited, the length of time required for the completion of the regenerative piocess varying from a few weeks to seven years of more. Therefore, in severe forms of injury, the cause, degree, and character of damage to the nerve are often of

greater importance in prognosis than the demonstration of the reaction of degeneration.

- (8,) The presence of reaction of degeneration, or partial reaction of degeneration, is not incompatible with the preservation of motility in the same area. This paradoxical condition has been found in cases of lead poisoning and a few others, but thus far the cause has been inexplicable.
- (9,) Strong currents are only rarely necessary. The weakest current that will produce a distinctly perceptible reaction is all that is requisite.
- (10,) A decrease or disappearance of faradaic irritability in nerve and muscle simply denotes an interference with the nutrition in the course of the motor tract between the multipolar cells in the anterior horn and the peripheral nerve distribution. It does not enable us to judge of the nature of the pathological process.
- (11,) The character of the reactions does not differ, whether the lesion is situated in the cells of the anterior horn, the anterior nerve roots, the nerve trunks, or their ultimate distribution. The same rule holds good in reference to the various cranial motor nerves and their nuclei, such as the facial, hypoglossal, and spinal accessory nerves.
- (12,) When the farado-muscular irritability is lost, no reaction can be obtained by a rapidly interrupted galvanic current
- (13,) The secondary current from an induction coil is the one generally used in testing faradate irritability. Owing to its high electromotive force, the resistance encountered in the moistened skin may be disregarded.
- (14,) The difference in the poles of the faradaic current is only a relative one, and can not be determined by the usual tests as applied to the galvanic current. The electro-motive force in the secondary coil is greater at the "break" than at the "make." The electrode that is felt to be stronger in its action is usually considered as the negative or so-called "faradaic cathode."
- (15,) In some apparently healthy individuals the musculo-spiral nerve fails to react to strong currents applied with the "faradaic anode," while a comparatively weak current from the "faradaic cathode" calls forth a quick response.
- (16,) In a case of undoubted peripheral paralysis the faradaic irritability may be preserved, but it almost invariably requires a stronger current to produce muscular contractions than upon the healthy side (quantitative decrease). [Dr. Leszynsky said he had never seen a case where this could not be demonstrated within a few days after the onset of the paralysis.]

- (17,) The character of the muscular reaction demands attention A slow and laboured contraction associated with decrease in faradaic irritability denotes degenerative changes
- (18,) The faradaic irritability may return in persistent cases of peripheral paralysis without any perceptible improvement in motility.
- (19,) Electro-diagnosis is inapplicable in paralysis of ocular muscles
- (20,) When the farado-muscular irritability is lost upon skin excitation, its presence may be demonstrated in the muscle for a longer time by means of acupuncture
- (21,) If electricity is to be of any service in ascertaining whether the nerve trunk has been divided or not, as a result of traumatism, the examination must be made as soon after the injury as possible. We can then determine at once if special surgical interference is necessary. Should two or three weeks elapse before such examination, it will be impossible to state whether the absence of reaction is due to traumatic neuritis or to complete division of the nerve Exploratory incision would then be called for
- (22,) The tests with the galvanic current require adequate apparatus and a working knowledge of the relationship between electromotor force, resistance and current strength. They also require much time, patience, and perseverance, hence their unpopularity

The Effect of Statical Electricity on Metabolism.—Truchot reports some experiments made upon his own person with the statical charge. He was charged from a Wimshurst machine to a potential estimated at 80,000 volts for fifteen minntes daily. The results observed were an increase in the frequency of the pulse, a rise in bodily temperature, and a diminution in muscular power; the appetite increased at first, but soon fell off, and he was conscious of a feeling of languor and weakness. The same results followed a second course of treatment. He concludes that the metabolism of the tissues in health is increased and unfavourably affected by statical charging. On the other hand, in patients whose metabolic processes are imperfectly performed, and especially in neurasthenic cases, this increased metabolic activity is useful and beneficial.

The Influence of Flectrical Stimulation upon the Nutrition of Muscle—Debedat reports the results of experiments made on the muscles of young rabbits with the various kinds of electric stimulation used in medical treatment. "The experiments were made on the group of hamstring muscles; those of the left side were stimulated in various ways daily for twenty days, four minutes a day; those of the right side were left for purposes of comparison. At the end

of the period the animals were killed, and the muscles of the two sides carefully removed and weighed, portions were also hardened and examined microscopically. The modes of stimulation were as follows: (1,) Induction coil current, groups of shocks lasting each for one second, and followed by one second of interval, (2,) Galvanic battery current of 2 milliampères, with the same periods of stimulation and repose, (3.) Static sparks of 2 to 3 millimetres repeated every two seconds, (4.) Tetanisation of muscles for four minutes by means of an induction coil, without intervals of repose, (5.) Steady galvanic battery current for four minutes without intervals of repose. The results showed a gain of 40 per cent in weight on the stimulated side with (1) the thythmic induction shocks, and of 18 per cent with (2) the rhythmic battery current. The effect of (3) the static sparks was ml, the prolonged tetanisation (4) caused a loss of weight; the prolonged steady battery current (5' a slight increase Adhesions had been formed between the skin and the muscle at the points of application of the electrodes in this last (5) The gain in weight was due to a true growth of the muscle, the loss was accompanied by histological evidence of damage to the The author concludes that the most advantageous muscle fibres mode of promoting the growth of muscle by electricity is to use an induction coil, and to arrange the periods of contraction and repose of the muscle so as to approximate to the conditions of a muscle during the performance of rhythmic gymnastic movements, namely, about thirty periods of contraction and thirty of rest per minute, prolonged tetanisation being distinctly hurtful.

Exophthalmic Goite - Rockwell relates his experience in the treatment of forty-five cases of Basedow's disease dating from 1876 - holding that the prognosis in this disease is better than its generally believed. Fourteen of these cases either fully or approximately recovered, twenty-seven were benefited, some of them in very great degree, others only slightly, while three were in no way benefited

Some of these cases that were much benefited relapsed and received further treatment with good results, while others have been lost sight of and their subsequent history is unknown. The electrodes used are of sculptors clav enabling him to apply as high as from 20 to 60 milliampères to the neck. If his results in the treatment of this disease have been exceptionally good, he attributes it to the fact that he has not confined his citorts to the use of drugs and the galvanic current alone, but has in many instances combined with these methods the most thorough and persistent treatment by general faradization. While he considers electricity of more importance than any other

remedy in the treatment of this disease, yet in many cases the most rigid and conscientious observance of certain fixed rules in regard to eating and drinking, and the avoidance not only of excess in every department of mental and physical hygiene, and even the repression of ordinary and legitimate emotions and passions, become very essential

Galvanization of the Brain - Hare believes that the benefit following galvanization of the biain is due to reflex influences and not to the direct passage of the current through the brain substance He supports this view by some experimental observations which seem to him to indicate that when a current is passed between the electrodes it does not pass through the brain substance at all, but in the direction of least resistance, namely, the scalp This he thinks was proved experimentally by placing electrodes, one on the occiput and the other on the forehead of a large dog, and arranging a milliampère meter in the circuit The amount of current indicated in one experiment was 53/ The same dog was then trephined and a needle milliampères connected with one pole of the circuit was plunged into the biain substance, the other terminal being placed as before. It was now observed that the amount of current passing was only 33/4 milliampères In other words, the resistance, according to Hare, is less in the circuit formed by the two wet sponge-coated electiodes and the scalp, than in the circuit formed by the needle. brain substance, bones and two layers of scalp with the other sponge-coated electrode

- D1 Deve, on the contrary, reports the following experiments, which seem sufficient to prove that electricity acts perfectly within the central portion of the brain. Upon the head of animals about to be killed two electrodes were placed at the end of the bipanetal diameter, and a current of 60 milliampères passed between them. Two galvanopuncture needles, insulated to within 5 millimètres of their points were connected with an astatic galvanometer, thus forming a secondary circuit. This done, these needles, now positive and negative, were plunged into the scalp in the following positions. The primary current was 60 milliampères.—
- (1,) They were plunged into the bi-polar line 5 centimètres from each electrode, when the metre of the secondary circuit, after one minute, registered 14 milliampères.
- (2,) They were separated from each other on this line 4 centimèties, I to II milliampères showing
- (3,) The distance between them was doubled, I to 5 milliampères showing

(4.) The positive needle in place, the other was introduced upon the occipit frontal line, 1 to 2 milliamperes

From these and other tests the following conclusions were drawn -

- (1,) The current passes through the scalp, bone and encephalon
- (2,) It is stronger in the scalp, and grows weaker by diffusion, the more rapidly when electrodes are removed furthest from the biparietal line.
- (3,) It spreads itself evenly through the entire encephalic mass. Nevertheless, assuming that gray matter is a better conductor than white, it is probable that electrical intensity is greatest in the cortical layers. Then, taking for granted the storage of electrical energy, we can schematically represent the head by a sphere, on the surface of which is found the thickest part of a layer of fluid, the thinnest nearest the centre, while the middle layer will correspond to the gray cortical substance.

The greatest resistance in the passage of electricity was found in the inner table of the skull.

REFFEENCIS -- "New York Med Journ.," March 24, 1804, "Transactions of American Electro-Therapeutical Association," Sept. 1893; "Revue Internationale d'Electro-thérapie," July, 1894, "Du Courant Alternate Sinusoidal en Gynecologie", "New York Med. Record," May 6, 1893; "Bit Med. Journ," April 21, 1894; "Arch. d'Electr. Médicale," Feb. 1894; "Therap. Gazette," December, 1893; "Arch. d'Electr Medicale," Mry, 1894; "New York Med. Record," Sept. 30, 1893; "Times and Register," Jan. 27, 1894.

# Anti-Microbic Treatment.

## PROF ALFRED H. CARTER, M.D., FR.CP.

Recent researches have considerably extended the range of the useful application of anti-microbic treatment. No sooner was it demonstrated that infective diseases were due to living micro-organisms than efforts were naturally made forthwith to ascertain to what extent substances, which were capable of destroying micro-organisms outside the body, could be made to yield corresponding results on micro-organisms within the body. Though something has been done in this direction, practical experience, soon showed that the range of application was extremely limited, and, mainly, for two reasons. In the first place there was the difficulty of bringing the germicide into direct contact with offending micro-organisms distributed in the blood, or deeply localised in the tissues and organs of the body. Secondly, there was the difficulty of finding a germicide of requisite energy which was free from toxic and irritant properties.

Anti-microbic treatment for the majority of infectious disorders has thus come to be regarded by many as either useless or of very secondary value. In opposition to this view, it must be remembered that germicidal preparations may be used with great advantage in the treatment of infections localised in easily accessible parts, such as the throat, mouth, and rectum. Again, there is no necessary parallelism between germicidal and toxic properties, and the prompt destruction of the malarial plasmodium by doses of quinine, which are harmless to the body generally, affords a striking confirmation of this statement.

But it is not only by the direct destruction of microbes that infective processes may be checked. Similar results may be attained by any means capable of arresting their development or of preventing their multiplication. For therapeutic purposes, in other words, antiseptic measures may be quite as serviceable as germicidal measures, and our rapidly increasing knowledge of the conditions under which microbes develop and multiply in the body, and of the causal relations existing between microbes and infective diseases, enables us to look at this matter from a much wider point of view than has hitherto been possible

Microbes can exist in the body only when the pabulum attorded by the blood and tissues is favourable. Healthy tissues, for the most part oppose considerable resistance to microbic myasion; but this resistant power may be reduced or altogether abrogated by a variety of conditions, which may be either inherited or acquired. Various as they are, they all agree in depreciating the standard of vitality to a more or less serious extent. Acquired predisposing conditions may be grouped under the five following heads (1, Blood-poisoning stoxemia), 2, Mechanical or chemical injury, '3,) Mal-oxygenation . 4. Deranged innervation; and (5.)-Defective nutrition predisposing conditions variously combined constitute in the vast majorny of cases a necessary precedent of microbic troubles it is most important for the therapeutist to be a these facts in hand, because the same conditions which favour the primary invasion of microbes, equally favour their subsequent development and multiplication, and consequently the observance of the same precautions which assist in protecting the body from the invasion of infection, will also render material assistance in arresting its progress when already started. Each succeeding years experience tends to emphasize the importance which belongs to the treatment of predisposing causes as part of an and microbic regime

Apart from infective diseases proper, such as the acute specific fevers, there are morbid conditions characterized by blood-poisoning in which anti-microbic treatment is of service; namely, those which are set up by the absorption of the products of gastro-intestinal putrefaction. Among them we find various substances of an alkaloidal nature, also various acids, and ammonia compounds such as leucin, tyrosin, indol, skatol, etc. Moreover, undigested ailmentary residues, and unabsorbed peptones become readily converted into products which are more or less toxic. Under ordinary calcumstances toxic disturbance does not take place, because of the strongly antiseptic property of the acid gastric juice, because of the regular and progressive character of the digestive process, because the contents of the alimentary canal are not unduly delayed before their final expulsion from the body, and lastly because of the rapid elimination in the urine of the small amount of toxic matter which is actually absorbed. If in any way these natural means of protection are weakened or wanting, toxic symptoms soon follow which manifest themselves in a variety of ways

From these considerations, therefore, we see that toxamia from the absorption of putrefactive products deserves attention from the therapeutist not only on its own account, but also by reason of the

important relation in which it stands to infective disease proper. It is a powerful predisposing cause of infection because it depresses the vitality of the patient, and it profoundly modifies the evolution of, and impresses an unfavourable character upon, infective disease in actual progress. A most interesting and important illustration of this will be found in the article upon the pathology of typhoid fever, by Dr Armand Ruffer, in the "Medical Annual" of 1893

Anticepsis of the Mouth and Throat—Rosenbach's a directious cannot be improved upon "The less solid food taken, the greater should be the case with the mouth. It should be insed out several times a day with luke-warm water, containing a little Common Salt and Tincture of Myrrh or Eau-de-Cologne. With bleeding of the gums of bad teeth, powdered Boric Acid may be twice daily subbed between the lips and gums. False teeth should be removed when no solid food is taken. In patients with partial loss of consciousness the mouth should be examined frequently for small sories, which, if present, should be powdered with a little boric acid, and cracks at the corners of the lips heal quickly if dired with a clean towel and treated with boric acid or vaseline"

In ulcerative stomatitis and noma, nothing answers better than the frequent application of solution of Mercuric Perchloride (1 in 1000)

Among other antiseptic mouth washes may be mentioned solutions of Sodium Hyposulphite (3 gis to the ounce), Borax, and Carbolic Acid (3—5% applied with a brush) Liq. Sodæ Chlorinatæ (5] to the pint of water) is efficient, but very unpleasant to taste. One of the most useful medicines for internal use in all forms of septic inflammation of the mouth and throat is the following —

Dose — I to 4 teaspoonfuls every two to four hours, in small sips

In the application of antiseptic solutions to the mouth and throat, all mucus should be previously removed as far as possible, by rinsing or swabbing with lime water, or other weak alkaline wash

Gastric Antisepsis—In the vast majority of cases in which putie-factive or irregular fermentation of the gastric contents occurs, the stomach is abnormally dilated, and the contents are unduly detained. The first step to be taken concerns the regulation of the diet: (1,). The bulk of the food should be as small as possible, consistently with the nutritive requirements. For this reason it should be nutritious, and not too liquid. Water should only be taken in small quantity at meal times, and the chief supply should be taken

when digestion has well advanced; (2,) The meals should be sufficiently far apart to prevent the supply of fresh food, until the digestion of the previous meal has been completed, (3,) All easily fermentable articles of tood, sugars, fruits, wines, and beers, should be avoided. If alcohol is permitted, pure whisky or brandy properly diluted is least objectionable. Bread should be stale, and toasted. When digestion is very weak an exclusive milk diet is desirable—three or four pints daily, in 8 or 10 divided doses, with the addition of a little salt, to be sipped slowly. Among anti-fermentative agents, the most useful are Bismuth Subnit. (in frequent doses of not less than gr. x), and dilute Hydrochloric Acid in chloroform water (soon after food). Salicylate of Soda, Creasote, Carbolic Acid, Naphthalin, or Iodoform are useful when well tolerated; but when the stomach is already the verifications, such preparations frequently disagree and spoil the appetite.

Intestinal Antischers. Among the various preparations used for this purpose, insoluble mercurials stand high, especially in the form of Calomel. A dose of calomel at the outset of nucrobic diarrhesa serves the double purpose of antisepsis and clearing out the bowel. The writer usually employs a single moderate dose in preference to repeated fractional doses, as some have recommended. In a linguing convalescence after a specific fever, with a persistence of megular pyrexia, a brisk calomel purge is often most valuable.

The aromatic series of carbon compounds yields several useful intestinal antiseptics, of which carbolic acid, salol, naphthalin, and  $\beta$ -naphthol are the chief. Only the purest samples of **Carbolic Acid** are to be used, with a melting point not below to  $4^{\circ}$  (Charteris). It is best given in pill form (gr. ijss in each pill) three or four times a day. If a pill cannot be taken, it may be dissolved in syrup and peppermint water

Unfortunately carbolic is toxic, and not more than 12 or 14 minims in twenty-four hours can usually be tolerated without giving rise to trouble the earliest signs of which are faintness and nervous depression, singing in the ears, slight deafness, formication, and clammy perspiration. Some darkening of the urine (due to the presence of pyrocatechin) is quite compatible with safety.

Salol (salicylate of phenol) may be substituted for carbolic acid. This insoluble substance passes through the stomach unchanged, but decomposes in the bowel, yielding carbolic acid, though so slowly that toxic disturbance is rare. From 30 to 40 grains in the day may be given in divided doses with safety, and larger doses have been used.

Naphthalin is one of the most satisfactory intestinal antiseptics. It has marked anti-microbic power, it is insoluble, little is absorbed, and it is not toxic. The usual dose is from gr. ij to v every four or six hours, in pill foim, in malt extract, or in cachets. Laiger doses may be given, but if continued are apt to upset digestion.

β-Naphthol is a powerful antiseptic. It is sparingly soluble in hot water, but soluble in olive oil (i to 8), and in vaseline (i to 80). For internal use it may be given similarly to naphthalin, in doses of gr ij every four or six hours. It is wise to begin with this small dose, as occasionally it seriously irritates the stomach.

Iodoform owes its antiseptic power entirely to the fact that in the presence of organic matter it slowly decomposes and yields iodine Apait from such decomposition it is a very feeble antiseptic. Then from its insolubility, it escapes absorption in the stomach to a considerable extent, and travels on to the intestine yielding iodine on its way. It would be one of the most efficient gastro-intestinal antiseptics, but for the drawbacks of its unpleasant smell, its liability to upset the stomach except in quite moderate doses (an average dose is gi ij in pill form every three or four hours), and lastly, unforeseen rapid decomposition attended with symptoms of acute rodism. Fortunately, the last drawback is rare

Charcoal, though not strictly speaking an antiseptic, has a wonderful power of absorbing and fixing toxic matters in the bowel. It has been strongly recommended in this connection by Bouchard<sup>2</sup>, in a daily quantity of 100 grammes mixed with 1 gramme of 10doform, put up in cachets of convenient size, and distributed over the day. By this means he claims to be able to keep both the fæces and urine practically non-toxic, and speaks highly of its value in typhoid fever.

Bismuth Subnitrate is undoubtedly an extremely useful adjuvant to the intestinal antiseptics above referred to. In the writer's opinion its value chiefly depends upon its beneficial and protective action on the intestinal mucous membrane. To be of any real service it should be given in large doses. Toxic troubles are unknown

Among other adjuvants to intestinal antisepsis mention must be made of occasional purgation with unirritating aperients, of occasional cleansing of the colon by enemata, and a carefully regulated diet

Antisepsis of Serous Cavities —The only circumstance under which washing out of a serous cavity is likely to occur in medical practice is in the case of an empyema discharging feetid and puttid pus. It was formerly the custom to always wash out the pleura after tapping an empyema, but this is not only unnecessary but attended

with some dangers better avoided if possible. Some wise words of Piot. Sanderson in a lecture published a few years ago are worth a permanent remembrance. "An enclosed in a serous cavity is harmless; water is harmless, septic organisms are harmless provided they are rapidly absorbed. The one thing fraught with danger is that liquid which is undergoing putrefaction should remain in a cavity, which though inside the body as regards temperature, is yet outside, in so far as it is beyond the reach of living tissue. It antiseptic trigation is thought desirable, choice may be made from the following warm saturated solution of Boric Acid, or Tincture of Iodine, (it in 1000), Perchloride of Mercury (it in 10,000). But above every thing—good dramage.

Antes fists of the An Passages - Many bronchial and pulmonary diseases are benefited by measures of this kind. Various methods are open to us -directly, by dry inhalations, inhalations of medicated sprays, insuffations, and intra-pulmonary injections, indirectly, by the internal administration of substances in some degree eliminated by the lungs. For dry inhalations with an oro-nasal inhaler, such as Dr Yeas, equal parts of Creasote, Guaiacol, or Carbolic Acid and Spirit of Chloroform; Tincture of Iodine (1 part), with Spirits of Wine (3 parts); and Eucalyptol (1 part', with Spirit of Chloroform 8 parts; have been recommended. For spray inhalations equal parts of waters solution of Mercuric Biniodide it in 500% and Iodide of Potassium i in 500', Carbolic Acid i in 20 to 40', Liquor Iodi (i in 100 cautiously increased) may be used. It is essential that the spray employed should be as fine as possible, and the admixture of 20 pc. cent of glycerine with any of the above solutions considerably retaids the condensation of the spray, and thus facilitates its transmission to the ultimate au-tubes. Insufflations are obviously only applicable to the. upper an passages, and are principally resorted to in the treatment of laryngeal tuberculosis. For this purpose, the best formula is Iodoform and Boracic Acid (of each gr 1, with gr. & of Morphia. Previous cleansing of the laryngeal surface with an alkaline smay is desirable. Intra-pulmonary injections are so rarely employed in this country, and have yielded such poor results, that they may be set on one side. Some antiseptic effect upon the air passages may be indirectly obtained by the regular and persistent internal administration of Guaracol or Creasote, which may be given best in small gelatine capsules, each containing # 11 Both are impleasant and hable to untate the stomach and to destroy the appetite. A far more elegant preparation is the Carbonate of Guaiacol, an insoluble tasteless powder, of which gr. x - xv may be given in milk three or

four times daily after meals, without any unpleasant results. It is slowly decomposed in the bowel, yielding guaiacol, which is absorbed. Under a prolonged course of this drug, the author has seen the appetite improve, the weight increased, with lessened night sweats, cough, and expectoration in many cases of phthisis. Icdoform, in pill-form (gi ij every four hours, gradually increased) has received much praise in some quarters. The writer believes that much of the benefit which is derived from remedies of this kind is due to efficient intestinal antisepsis, acting indirectly in the manner which has been already described.

Riferences — " "Zeit fui Kiankenpflege, 'Apiil, 1894, " Lectures on 'Auto-intoxication" (  $\Gamma$ 1894

## PART II—NEW TREATMENT

# A Dictionary of New Treatment in Medicine and Surgery, 1895

### ABDOMINAL INJURIES (Internal).

Gilbert Barling, M.B., F.R C.S.

The Diagnosis and Treatment of Injuries to the Abdomen without External Wound -- Probably no class of case offers more difficulty in diagnosis and treatment than those injuries to the abdomen caused by heavy falls upon it or severe blows by blunt instruments is no penetrating wound, often indeed there is not even a bruise or graze to indicate that violence has been suffered, and yet frequent instances occur of such injuries in which severe and fatal damage has been inflicted on some of the abdominal contents. The difficulty of diagnosing the exact condition present is enhanced by the fact that the symptoms vary in their intensity in examples of practically the same injury, sometimes they are very pronounced and at others much less so. Again, a further difficulty is added by the possibility of violence talling on the large sympathetic plexuses in the cavity, causing such intense shock even when no viscus is damaged, as to lead to the belief that intestine may have been toin and its contents extravasated, or a soft vascular organ like the liver lacerated, with resulting severe hæmorrhag**e** 

In buefly discussing these injuries I propose to say nothing of injuices to the bladder or to the kidneys, because by physical examination it is generally possible to determine whether the bladder has been injured, and the hæmaturia resulting from injury to the kidney localises the damaged viscus, and further, injuries of the kidney only rarely involve the pentoneal cavity. Excluding these, the lesions most often found are lacerations of the liver or spleen, with resulting severe hæmorrhage, rupture of the gall-bladder, or of the bile ducts, with escape of bile into the abdominal cavity, wound of stomach or intestine, contusion of the same leading eventually to perforation and hæmorrhage into the abdomen from tearing of mesenteric or omental vessels.

In attempting to airive at a coirect conclusion as to the exact lesion within the abdomen, it must at once be freely acknowledged that the surgeon will often be wrong in his diagnosis, and that operative proceedings resorted to for the purpose of dealing with the injury must as a rule be regarded as exploratory. The recognition of this fact does not, however, impugn the propriety of attempting to relieve by operation patients suffering from these injuries, but calls for the greatest care in formulating an opinion, and for the greatest discretion in resorting to operation. Especially is this the case in the period immediately following the infliction of the injury when the shock is often very severe, and surgical interference may bring about a fatal result which would be avoided by longer delay before operating. On the other hand it must of course be recognized that delay may mean further escape of blood or wider extravasation of alimentary contents, and so even greater danger be incurred.

Characteristic indications that any particular organ has been injured are unfortunately uncommon. The history of the accident, the locality struck, the condition of marked rigidity of the abdominal parietes, and the extreme pallor, jactitation, etc., indicating severe loss of blood, are points specially to be noticed as guides to the nature of the internal lesion.

When the violence falls upon the locality occupied by the liver of spleen, and the symptoms point to severe loss of blood, the position is one of the greatest gravity and responsibility. Although small lesions of the liver certainly, and of the spleen possibly, may heal and a complete accovery follow, the more extensive ones are very fatal within a short time of the infliction of the injury It follows, therefore, that if any attempt is to be made to save these cases, the interference must be prompt, as the patients die simply of hæmorrhage. The only reason for greatly hesitating is the difficulty of determining whether the patient's depressed condition is due to mere shock from injury to the sympathetic nerve distribution, a condition forbidding active interference, or to hemorrhage calling urgently for it, or to both conditions combined. It is impossible to dogmatise as to the distinctions to be made between shock, such as is above referred to, and the condition produced by severe internal bleeding From considerable experience of this class of case, however, in a hospital with a large admission of accidents. I have formed the opinion that the existence of severe hæmorihage may be shrewdly surmised from the extieme anæmic pallor of the patient, and extreme restlessness and jactitation, further than this I do not think it possible to go

'If laceration of the liver or spleen be suspected, and after considera-

tion of the circumstances above mentioned operative measures be determined on, the incision should be median and in the upper half of the abdomen Blood being then found and its source discovered, further space for dealing with it may be obtained by transverse division of the abdominal walls, which should unhesitatingly be resorted to if it offers To control the hæmorrhage from the liver we must resort either to deeply inserted, coarse sutures of catgut passing across the torn portion, or to firm packing with strips of gauze, or possibly to the use of the two combined. The actual cautery and a styptic, such as perchloride of non, may also be used as secondary measures case of a lacerated spleen the writer is not acquainted with any attempt to deal with the hæmorihage, and though a trial might be made of deep sutures and packing, it is probable from the friable nature of the organ that they would fail to control the bleeding Ligature of the splenic vessels and removal of the organ should certainly be performed then as the only means of controlling what would otherwise be a fatal hemorrhage Fortunately, the limited experience we have of splenectomy, when performed for other lesions than enlargement from leukæmia or malaria, shows that it is an operation which at all events has good immediate results. After thoroughly cleaning the abdomen by flushing with warm saline solution to get rid of blood clot, the cavity should be drained. This is especially to be remembered in the case of the liver, when bile ducts of considerable aire may have been injured, leading to free escape of bile, which, unless provided with a free exit, may do haim

This leads one naturally to refer next to injuries, the main feature of which is damage to the gall-bladder, or to the main bile ducts, in which, though the liver also may be damaged, harmonhage from it is not threatening, and extravasation of bile is the main cause for anxiety When bile escapes from a ruptured gall-bladder, and usually when it escapes from a torn duct, it runs freely about the belly cavity casionally when one of the ducts outside the liver is torn, the bile escapes into the sac of the lesser omentum Some years ago I had the opportunity of watching a case of this kind in which a large welldefined fluctuating tumous presented itself in the umbilical, engastric, and left hypochondriac regions. At the autopsy several days after the injury, two to three pints of bile were found in the cavity of the lesser omentum, and its source was a tear in the left hepatic duct. the only other lesion being a trifling injury to the liver itself. Escape of bile into the belly cavity gives rise to peritonitis, but it is not of an intense kind and may run on for many days before a fatal termination results. Indeed, it is quite probable that in some cases, in which the amount of bile escaping is not large, recovery takes place without active interference As indicating the escape of bile into the peritoneum, in addition to an advancing peritonitis, we have jaundice and bile in the urine These latter may be present slightly or to an intense degree, depending apparently upon (1,) whether a small or a large escape of bile takes place, and (2,) whether it is circumscribed, as in the cavity of the lesser omentum, or lying free in the general cavity. As a rule. in cases of extravasated bile, there is no extreme urgency for operative interference immediately after an injury, but later, the conditions having been diagnosed, diamage of the abdominal cavity should be resorted to If the patient's condition permits, it is advisable to drain at the upper part of the abdomen by a median incision which would command the portal fissure and provide a direct outlet for the bile on to the surface, and at the same time to put a second drain into the pelvis, to get 11d of collected bile and peritoneal fluid and to prevent further accumulation there, if the upper drain fails to divert all the escaping bile out of the abdomen

When the alimentary tract is injured the intestine suffers much oftener than the stomach, and the small intestine oftener than the large The stomach doubtless escapes owing to its being protected by the thoracic panetes and the liver, and partly because of its thick walls, the large intestine because when struck from the front or laterally it is not projected against bony prominences as the small intestine s The position of the small intestine in the central against the spine area of the abdomen, over the spinal column, and the thinness of its walls, explains, no doubt, why it is so commonly damaged by the kind of injury under discussion The diagnosis of rupture of intestine or of stomach is correctly airived at in a certain number of cases, but it should be made hesitatingly and with full recognition of the uncertainty attached to it The indications are the extreme collapse and pain usually following immediately upon the injury, collapse which is so rapid in its onset that it cannot be due to hæmorihage is often intense and agonizing, at least this appears to be usual when the jent is so large as to allow of a free escape of alimentary contents. when the rent is small, and, as is then often the case, partly blocked by the everted mucous membrane, extravasation is slight and the pain moderate Rigidity again varies considerably, but in cases of extensive teating it is usually very marked, the abdominal walls feeling like a board and being retracted in the early hours following the injury, as though making an effort to fix and enclose the damaged part and so prevent leaking into the peritoneum. Local tenderness there will also be sometimes intense, giving place later to diffused tenderness, with

which comes commencing distension, marking the onset of pentonitis. Vomiting occurs in a majority of cases immediately after the injury Later, vomiting occurs in practically all cases with advancing pentonitis. The absence of vomiting must not be taken to contra-indicate rupture, and the presence in the vomit of blood in some quantity would point to the stomach as the seat of the lesion rather than the intestine. Dulness may or may not be present, but owing to the existence at times of marked retraction by the muscles, and at others of distension of the intestine from peritonitis, the conditions and degrees of resonance are very variable and are of little use in diagnosis. Diminished liver dulness, due to escape of gas into the peritoneal cavity from forn gut or stomach, is again of little help, as it may be simulated by distended intestine obscuring the liver. Complete abolition of liver dulness would be of value, as it could scarcely be due to anything else than gas leaking from the alimentary canal.

To sum up, the diagnosis of iuptured gut or stomach depends upon the history of the violence, often a sharp, severe but localised injury, the immediate collapse, the intense pain, and the retraction of the abdomen

TREATMENT -This consists in median section, the site of which is to some extent guided by any external evidence there may be of minry, and partly by such a condition as considerable harmatemests pointing to the stomach as the injured part. The abdomen being opened, the existence of a rent of any size is fairly certain at once to be shown by free gas, fluid, or semi-digested food in the peritoneum. The absence of extravasation, however, does not imply the absence of rupture. This may be so small, so nearly scaled by everted mucous membrane, or so surrounded by adjacent gut and rapidly forming adhesions, that only careful search reveals its presence, and it is just in these cases that the best results are obtained. Whether positive evidence exists or not. the cent must be systematically searched for by picking up a presenting piece of intestine, making this a fixed point and searching in one direction from it; then, if necessary, returning to it and searching in the opposite direction. The ingenious use of hydrogen gas insufflated into either rectum or stomach, as suggested by Senn, does not seem to find favour as a method of detecting a leakage from the alimentary canal. it should, however, be boine in mind that it appears to be mechanically possible, that it is safe, and that it may give positive evidence of the utmost value.

A rent being found, if *small*, whether it be transverse or longitudinal it can generally be closed with safety by Lembert's sutures; but a good deal of discretion should be exercised if the wound is of considerable

If it be on the convex portion of the bowel, that is, away from the mesentery, a wound an inch long may probably be sutured with safety whatever its axis, but if it be on the mesenteric side of the bowel and transverse, suturing might lead to acute flexion and obstruction. while if it were in the same situation and longitudinal, the sutures would be likely to cut off the blood supply to the convex maigin of the gut and so cause gangrene and perforation Much caution is also needed in dealing with severe bruising either of mesentery or intestine In either case bowel tissue may die from deprivation of blood supply due to laceration and thrombosis, with resulting perforation which may take place many days later For wounds too extensive to be immediately sutured, intestinal resection, with subsequent apposition, will be needed, as will be the case also with severely bruised gut or mesentery. It might be uiged that a circular jupture of the gut should be sutured without resection, but from the biuising of the edge, and, often in addition, biuising of the mesentery, union is likely to fail in part and secondary perforation occur. As to how the resection should be carried out, whether mesentery should be removed or simply sutured over, whether the intestine should be reunited with sutures only or by some mechanical means, as Senn's plate or Murphy's button, I do not propose to discuss, as it would be outside the scope of this paper

It remains now only to say a few words as to hamouhage into the pentoneum from such source as torn vessels in mesentery or omentum This doubtless occurs to a limited extent with some frequency. But not to a degree to produce symptoms. In one case, however, under my own care, a child suffered peritonitis of some severity, which appeared to be due to the presence of a few ounces of blood in the peritoneum. which was evacuated by incision. It ought to be mentioned though. that this small hamoirhage was complicated by bruising of intestine which eight days later caused perforation, and therefore the peritonitis may have depended more upon the condition of the gut than upon the small collection of blood When the hæmorrhage is severe, the marked collapse and evidence of loss of blood will lead the surgeon to suspect that violence has been done to some part, such as the liver. events, active interference will be almost entirely exploratory, and it is only when the abdomen is opened and the source of the bleeding discovered in torn omentum or mesentery that injuries to some other more important structure can be included

The treatment consists in evacuation of the blood and washing with warm saline solution and ligature of bleeding vessels. Rents in tissue, like the omentum, should be sutured to prevent future mischief in the form of internal strangulation. Tears in the mesentery may

also call for similar treatment, but if near to the intestine and of some extent, they may require much more serious treatment in excision of a V-shaped flap of mesentery and intestine corresponding to it. The laceration of the mesentery close to the gut is most dangerous to the vitality of the latter, and it is mere trifling with danger not to recognize this and act upon it.

# ABDOMINAL SURGERY. A W Mayo Robson, FR C.S

Although it would be difficult to say that any marked innovations have taken place in the surgery of the abdomen during the past year, distinct progress has occurred in every branch, and will be dwelt on under the special headings—Appendicitis, Gall Bladder, Hernia, Intestine, Liver, Stomach, Pancieas, Ureter, Peritoritis and Spleen

Gastric and intestinal surgery have more especially made distinct progress, and meteral surgery is passing from the experimental stage in animals to the practical in the operating theatre

Abdominal Injury - The large number of cases reported, of successful operative treatment following on severe abdominal injury with or without external wound, shows that the larser faire policy in such cases is fortunately rapidly dying out. In one case reported by Di Wiggint six inches of jejunum were successfully excised by Maunsell's method thuty hours after the accident, the rent in the bowel being small, but the adjoining gut being much bruised. A case reported by Mi W J Thomas and successfully treated by suture of the bowel, shows how slight an accident may be responsible for the injury, this patient giving the history that twenty-four hours previously whilst carrying a garden chair before her it suddenly struck the door-post. and her abdomen was brought with violent contact with the other side of the chan. The case also shows that the general condition may be misleading, as although distension and tenderness were present, the patient's pulse was only 80, and she was able to walk across the room and without assistance to climb on to the operating couch

In Mi Battle's case, the intestine was completely cut across at the time of accident, and lateral anastomosis by means of Senn's plates was performed. Unfortunately, however, the case ended fatally on the sixth day.

An interesting discussion on penetrating wounds of the abdomen with visceral injury followed on a paper by Dr. Stimson<sup>1</sup> at the New York Surgical Society, describing a case of stab wound, in which there were three separate wounds of the small intestine, two of the omentum and one of the mesentery, all of which had been closed successfully. The same surgeon also related a case of pistol wound perforating the

sigmoid flexure in two places, also successfully treated All the speakers were in favour of early operation

Di Gann<sup>5</sup> and Mr Jones<sup>6</sup> both report iemaikable cases of penetrating wound of liver treated successfully by abdominal sections, and Mr Battle<sup>7</sup> contributes a case of complete transverse rupture of the common bile-duct in a boy who had been run over by a hansom cab Unfortunately, however, operation was not performed until the seventh day, when there was general peritonitis and the patient was too ill to recover

Rupture of Bladder—Sieur<sup>8</sup> shows that the moitality from this accident has been reduced from 90 to about 54 per cent during the past fifteen years

An address on two cases of death from uncomplicated intia peritoneal rupture of the urinary bladder by Dr Joseph Coats<sup>9</sup> is well worthy of study, as in it are discussed the questions of  $(a_i)$  The absence of peritonitis, although the peritoneum contained a large amount of urine,  $(b_i)$  The absence of inflammatory reaction in the wound of the bladder, and  $(c_i)$  The mode of death in such cases from uræmia

Treatment of the Pedicle in Abdominal Hysterectomy by the Intraperitoneal Method —In the "Bit Med Jouin," for Jan 20th, 1894, we published a series of cases demonstrating the practicability of this procedure. The method employed was to tie off the appendages and to make anterior and posterior semilunar flaps from the uterus, the uterine afteries and all other vessels that could be seen being ligatured, the wedge shaped flaps apposed by buried sutures, and the perltoneum being closed by a continuous stitch from one broad ligament to another before the tourniquet was removed, after which the abdominal wound was closed without drainage. Six consecutive cases all recovering, just as an ordinary ovariotomy, leads me to say that I can safely recommend the method to others

Fistulæ after Abdominal Section—In the transactions of the American Gyn Soc, Di Mundéro contributes a paper on this subject. He considers that a common explanation of such fistulæ is to be found in the character of the contents of the parts removed—for example, in cases of pyosalpinx or suppurating ovary if they burst during removal, so that pus escapes into the pelvic cavity—Dr Mundé is of opinion that, no matter how carefully and thoroughly washing out is done, some of the pus remains and forms a focus, ultimately leading to the formation of an abscess that generally opens at the lower angle of the abdominal wound—The formation of fistulæ is also favoured by the use of the drainage tube, and is likewise frequently due to the irritation caused by the presence of an unabsorbed silk ligature at the bottom of

the sinus. Another cause of fistulæ is the incomplete removal of the diseased parts, as in cases of suppurating cyst, where some portion of the cyst wall has been left. In order to prevent the occurrence of these fistulæ it might be thought that we need only use all possible antiseptic precautions, remove the whole of the diseased and infected tissue, avoid the use of ligatures that are not likely to be absorbed. and close the abdominal wound completely. But, although careful attention to all these points will tend to diminish the frequency with which fistulæ occur in the practice of any particular operator, Dr Mundé is of opinion that occasionally a fistula is unavoidable regards the treatment to promote closing of these fistula, supposing there is no reason to think that a foreign body, such as a silk ligature, is at the bottom of the sinus, the writer advises scraping with a sharp curette, followed by dark arreation of the canal with weak sublimate solution and packing with iodoform gauze; he also mentions the use of balsam of Peru, or dilute fincture of calendula (1 in 4), as likely to promote healing. In obstinate cases that do not improve under such treatment he advises drainage by the vagina, a counter-opening being made on the point of a sound or director passed to the bottom of the sinus, and a drainage tube being passed through into the vagina. object aimed at is then to get the sinus to heal from the top, the tube being gradually drawn down into the vagina at intervals of a few days. There is a possibility of juptuing the bladder when carrying out th manipulation described, and this accident has happened three times to Dr. Munde whilst drawing the dramage tube from the festula into the Finally, he considers that in some cases no treatment is of any avail, and it is best to advise the patient to let well alone and "keep her sinus so long as she can live comfortably with it." In the discussion on the paper, Dr. Clement Cleveland and others called attention to the value of peroxide of hydrogen in treating these sinuses. It may be used in various strengths, one-third, one-half, and full strength, but chiefly the latter.

The Sub-Umbilical Space has been recently investigated by Di Fischerii who has demonstrated by means of injections, a space shaped like the ace of spades, having its base at the navel and its apex six c mibelow. Acute inflammations may originate in this locality, or may occur from extension from neighbouring parts leading to an acute abscess. We saw and operated on one lately in the case of a middle-aged lady, the symptoms at first being almost like those of a localised peritonitis. Although the diagnosis of these cases is somewhat difficult the prognosis is favourable, and the treatment by free incision, the careful use of the curette, and packing with iodoform gauze, are most

satisfactory Among other affections of this space have been roticed chronic abscess, very apt to lead to umbilical fistula and neoplasms

Spontaneous Disappearance of Solid Abdominal Tumours after Laparotomy was the subject of a paper by Mr Gieig Smith who related three cases in support of his arguments. He explained the origin of the tumours in question as the heaping up of embryonic protective cells around a minute fistulous opening communicating with intestine, and said that cure was accidental but not spontaneous. depending in one case on a diversion of intestinal contents, and in the two others on an internal opening of the fistula. This manifestly explains some of the cases in question, but there are many cases on record of the disappearance of large abdominal tumours after a simple abdominal section which cannot be explained on this hypothesis I have invisely reported cases which to all appearance were malignant. and where after laparotomy, complete and permanent recovery ensued with a gradual disappearance of the tumour Hence the question of operation is always worth considering in doubtful cases, especially as a simple exploratory operation is almost devoid of risk

Traumatic Intra-peritoneal Hamorrhage —In these cases it is usually considered necessary to find the bleeding point, but where collapse is extreme this may at times be impracticable from the fear of death on the table A case coming under my care at the Leeds Infirmaty proves that washing out with hot saline solution and diamage may at times answer all that is required A boy of eight years, crushed by a bull between its head and some railings, was brought into hospital in a state of collapse. After a few hours he rallied a little, but it was evident both from the appearance and from the presence of dulness and fluctuation in the abdomen that internal hæmorihage was going A small opening was therefore made below the umbilious and two pints of pure blood at once flowed out, after which much more was washed out with hot saline fluid at a temp of 110°. As the boy was too ill to permit of further exploration, a tube was inserted into the pelvis, and then was emptied as frequently as it became filled, with the result that after a few hours the hæmonhage had ceased, the patient making an excellent recovery

The source of the hæmorrhage was not made out, but the emptying of the abdomen gave the opportunity for coagulation to take place in the opened vessels, and saved a prolonged search which might have ended in death from shock

Abdominal Auscultation in intestinal obstruction we have frequently found of marked service, not only in distinguishing between mechanical obstruction and peritonitis, but also in localising the site of

obstruction Bendersky advocates the use of auscultatory percussion to determine the limits of the abdominal and thoracic organs He says that in respect to the stomach it gives the best results. A soft stethoscope is placed over the organ to be examined. When the lower limit of the stomach is reached, the percussion note is either but faintly or not at all heard Lower, the note of the colon can be made out, and it is said that it is possible to ascertain the width of the transverse colon. and thus to recognize when it is dilated. The upper limit of the stomach can only be relatively determined. In some cases the boundaries found for the liver and spleen have been ascertained to be correct after death. Fluid in the abdomen has been found to extend one and a-half to two fingers breadth higher than was indicated by ordinary percussion, and in the same way the cardiac dulness has been made out to be larger. Renal percussion may also thus give more accurate results. The author concludes that the boundaries, especially of the abdominal organs, and particularly of the stomach and parts of the intestine, can thus be satisfactorily ascertained. The method is specially useful if the observer be slightly deaf. The number of cases in which gastric dilatation has been incorrectly diagnosed will be diminished by this method of examination. The author describes and figures a collective stethoscope capable of being used by a number of observers at the same time

RFFBRINCES—\*\* Wiggin, "New York Med Journ," Jan 20, 1894, 2 Thomas "But Med Journ," June 23, 1894; 3Battle, "Lancet," May 5, 1894; 4Stimson, "Annals of Suig.," Jan, 1894, 3Gann "Lancet," June 2, 1894; 4Jones, Ibid, May 5, 1894, 7Battle, Ibid, April 7, 1894; 5Jones, Ibid, May 5, 1894, 7Battle, Ibid, April 7, 1894; Siem, "Rev. de Chu." March, 1894, 9Joseph Coates, "But. Med. Journ," July 21, 1894; "Mundé, "Lancet," May 12, 1894; "Fischer, "Annals of Suig.," July, 1894, 3 Greig Smith, "Lancet," Jan. 27, 1894, 3 Bendersky, "Wien Med. Woch," Sept. 1, 1894, and "But Med. Journ." Suppl., Sept. 29, 1894

#### ABORTION

MacEvitt' advocates the following plan of treatment in non-preventable miscarriage: -

- (1,) Curettement, as a rule primary dilatation becoming necessary
- (2,) Vaginal Tampon and the administration of oxytocics.
- (3,) Oxytocies with the application of an external pad and a bandage, and fluid extract of Ergot internally

Curettement is now generally adopted by the progressive members of the profession, yet there is a doubt as to its always being advisable. The author prefers to keep the patient under observation for a few days before resorting to it, and thus jurge of the necessity of its performance.

He thinks that the sharp curette in unskilled hands is a dangerous institument at this time

The old treatment of tamponing the vagina is by no means obsolete, and when properly performed has an individual value which no procedure can supplant. Packing the vagina with cotton is both useless and dangerous. The hæmorrhage is always more alaiming in the early stage of the case. It is in this stage that the kite-tail tampon finds its great utility, acting not alone as a mechanical hæmostatic, but as an excitant to uterine contraction.

Morphine is administered for the double purpose of relieving the pain, softening the cervical tissue, and facilitating the dilatation of the os. If the membranes are found protruding, by a gentle twisting motion with two fingers they can generally be removed. If the membranes do not present, yet are perceptible to the touch, the os should be dilated by the finger. As soon as this can be accomplished the uterine cavity is irrigated with a 5 per cent solution of Carbolic Acid, or 1 to 1000 of Biniodide of Mercury. When the membranes are retained beyond the reach of the finger, provided there be no feetid discharge, vaginal douches of the same strength should be used, a kite-tail bandage should be applied, and 20-minim doses of Ergot should be given. This treatment is continued until the contents of the uterus are expelled, or the temperature, pulse, or discharge demand curettement.

Nicholson<sup>2</sup> details a case benefited by **Saline Injections** into the rectum after severe hæmorrhage following abortion.

REFERENCES — " "Brooklyn Medical Journal," September, 1893, "Therap Gazette," Nov 15, 1893

Synopsis — (Vol 1894, p 52) For incomplete form Davis uses Iodoform Gauze Tampon, one end inserted inside os if possible, after dilatation Douche Curette is used with 1 % Creolin solution at 100° Fh. The tampon is applied for twenty-four hours longer, and its removal is followed by another creolin douche. Pryor treated abortion and acute peritonitis by curetting and packing the uterus with Iodoform Gauze. Recovery followed. Among unusual sequelæ, Wilson describes a polypoid growth due to subinvolution of the uterus at the placental site with the leakage of blood that has become organised. It occurs two weeks or more after removal of placenta, and produces sudden hæmorrhage and bearing down pains. Removal by finger or curette is indicated together with Ergot internally to overcome subinvolution.

#### ABSCESS.

Synopsis — (Vol 1894, p 54) For mammary abscess, Mundé's method of compression with a large sponge gives good results. Retropharyngeal abscess should be opened by external incision along the posterior border of the sterno-mastoid, as advised by Prof Chiene (p 461) Fluid extract of

Teucrin is used by Prof Mooihof in treating cold abscesses He injects 3 ccm deep into the subcutaneous tissues in the vicinity of the abscess under antiseptic precautions. One injection is reported sufficient (p. 42) Chotza recommends Alumnal as an application to abscesses (p. 8).

#### ACNE ROSACEA.

Synopsis — (Vol 1894, p 57) Galatz incises pustules, and paints for three days with R Resorcin gi 15, Ichthyol gi 30, Collodion  $\bar{\bf z}_{\rm J}$  M Ft applicat Stelwagon uses Ergot in cases dependent on uterine trouble Where hyperæmia is active, lotions or outments of Calamine, Tannic or Boric Acids with the addition in some cases of one or more grains of Zinc Sulphate to the oz Destroy capillary dilatations by Multiple Punctures or Electrolysis Schwimmer recommends R Sulphuris Pracip  $\beta$ -Naphthol  $\bar{\bf a}\bar{\bf a}$  5 parts by weight, Saponis Viridis 10 parts, Adipis Prep 20 to 30 parts Apply for several successive nights and for one or two hours at a time, then wash off and use a dusting powder Free desquamation follows, and Ichthyol in solution is used frequently by day and as ointment by night Scarification may be necessary For marked hyperæmia Ichthyol is useful, e.g. R Saponis Viridis 50 parts by weight, Alcohol Rect. 100 parts Solve, deinde filtra et adde Sulphuris Pracip 5 parts

#### ACNE YULGARIS.

T Colott For, MIB

Di. Stephen Mackenzie in introducing a discussion on the Etiology and Treatment of Acne Vulgaris advanced the following propositions —

(a,) The primary condition is a blocking of the ducts of the sebaceous glands, indicated generally by the production of comedones which leads to inflammatory changes, and frequently ends in suppuration.

(Å) The cause of the blocking of the ducts is due to the collection of sebaceous cells (glandular) which, owing to incomplete involution or devolution, accumulate in, and block, the ducts

(c) The inflammatory results follow from this blocking, but why such results follow with greater readiness in one case than another is open to argument; possibly an additional factor plays its part. The suppuration is probably due to the entrance of pus cocci.

(d) The physiological excitation of the sebaceous glands, which accompanies the growth of the hair in connection with publicity, is the starting point of acne, and the acne lessens and finally disappears as this physiological activity subsides.

(e,) In the lesions of acne one or more abortive hairs are nearly always found, and it would appear that it is in those parts of the skin where the sebaceous glands are especially active, whilst the hair formation is relatively defective in development, that acne is prone to occur.

(f) There is also a peculiarity of skin which predisposes to this plugging of the ducts, variously designated as opaque, doughy, coarse,

muddy, thick, sluggish, etc. Probably this does not imply any anatomical obstituction to the escape of sebum, but is associated with imperfect functional properties in the sebaceous cells, leading to their accumulation

- (g,) The various aberrations in the general health and disturbances of function in different organs, such as general debility, languid circulation, anæmia, derangement of the digestive or sexual functions, which are so frequently found associated with acne, are also of like common occurrence in many other patients, and probably are not direct exciting, or even contributory, causes of acne
- (h) Fluxionary congestions of the face, occasioned by indigestion, the use of stimulants, changes of temperature, excitement, and exacted self-consciousness, etc., probably aggravate or exaggerate acne, when the local conditions are favourable to its occurrence, but will not produce it unless they are ready to hand
- (1,) The alterations of temperature to which the skin of the face is subjected must lead to irregular stimulation of its glandular apparatus, and we often see the most aggravated forms in those whose occupations expose them to unusual degrees of heat, especially when this is associated with dust. Possibly the winter season also predisposes

TREAIMENT—Turning to the treatment, Dr Mackenzie advised the concentration of efforts on local measures, and divided such treatment into two heads, viz, (i,) Preventive in those predisposed to acne, and (2,) The treatment of the developed disease

Preventive Treatment - The objects are, (1,) To remove the superfluous seborrhæic secretion, and exercise a dermatolytic action on the epideimic accumulations in and at the mouths of the sebaceous ducts, (2,) To stimulate the sebaceous glands into healthy activity, (3,) To keep the skin aseptic and thus prevent the pus cocci from gaining admission to the mouths of the follicles In Eichhoff's Medicated Soaps we have cleanly, powerful, and convenient remedies The most useful for this particular purpose are the alkaline-camphorsulphur. Peruvian balsam, the creolin and the alkaline brimstone soaps. the alkaline sulphur and the creolin powdered soaps, and the neutral salicylic sulphur and the salicylic resorcin-sulphur powdered soaps The face should be steamed or bathed with hot water previous to the application of the soap, and hot water used in making the lather The soap should be used simply for washing, or rubbed in and afterwards washed off, or allowed to remain on, with or without a watertight diessing, according to the activity of treatment demanded Busk towelling excites the languid circulation and compresses the

glands and ducts This treatment must be as persistent as the condition which calls for it

The treatment of the developed disease.—The principles are, (1,) To remove the plugs which occlude the sebaceous ducts, and the epidermic accumulations about the mouths of the follicles; (2,) To subdue any existing inflammation, (3,) To remove the conditions which, if allowed to remain, will lead to a recurrence of the disease. To fulfil these conditions all comedones should be removed by expression in conjunction with the soap treatment, which implies the application of hot water by bathing and steaming. If the skin is unitable from inflammation, such milder Superfatted Soaps as the menthol of the menthol eucalyptol are indicated All pustules or indurated nodules should he punctured by the acne lancet, or in default of this should be touched with a drop of liquefied carbolic acid and then covered with collodion Any inflammation between the acne lesions should be subdued by the applications of Soothing Ointments (ung zinci benz, ung glyc. plumbi subacet, ung acid boiici, carbonate of zinc in cold cream) at night and a calamine lotion in the day-If no troublesome inflammation is present stimulating ointments at night may be used, eg, Sulphur or Belladonna (ext bellad Zu. lano-vaseline or ung zinc. oxidi qs, or even the simple extract in special cases) is often of much service, but the eyes must be protected. In the day a Calamine of Creolin or Sulphur (sulphur in eau de Cologne) lotion may be used. When the lesions are removed then carry out the preventive treatment

Constitutional treatment of acne is neither necessary nor useful, though any disturbance of health from which the patient simultaneously suffers may be set right.

In the ensuing discussion there was a general agreement with Dr. Mackenzie's views, with some reservations. Dr. Leslie Roberts considered the comedones to be a deposit of unused fat, collected in the ducts as the result of an epithelial secretion of fat beyond what could be consumed by the integument. Dr. Payne, however, considers it a developmental affection, residing, not in sebaceous glands alone, but in rudimentary hairs, such as occurred on the face, the shoulders, chest, and other parts. These imperfect hair follicles produced numerous abortive hair shafts, and their glands being also imperfect, produced imperfect sebum, which was too thick to be diffused along the hairs, but clogged the follicles. The inflammation of acine was due to micro-organisms. Payne insisted on the influence which diet exercised on the occurrence of acine. Dr. Crocker also held that the quickest and most efficient method of cure was to correct any health

disturbance simultaneously with the local treatment Di Abraham uses Ichthyol Soap principally, whilst Di Stopford Taylor commends the Linimentum Saponis (BPh) because so many drugs could be incorporated in it Di Unna found Resorcin Sublimate Paste of great value Di Crocker thoroughly disinfects open pustules, and Stopford Taylor believed the Weak Ammoniated Mercury Ointment was unequalled for this

At the meeting Unna demonstrated a bacillus which he claims to be the "acne bacillus"

Payne obtained success by using the current, not exceeding 3 milliampères in strength, from a dry Leclanché battery to remove indurated lesions lest in the cheek after thirteen years of the disease. The needle from the negative pole was inserted deep into the centre of the indurations, and was repeated where the nodules were large.

W Allan Jamieson in obstinate indurated acne opens the abscesses and then applies Unna's Salicylic and Creasote Plaster

Kaposi, in a communication upon the connection of derimatoses with internal disorders, referred to Singer's researches in which he demonstrated the appearance and disappearance of acne in connection with certain processes in the intestine. Kaposi pointed out that whatever value there was in these observations, acne was certainly a disease connected with puberty, and the activity of the hair growths and its attendant glands. To account for the inflammation it is not necessary to call in pyogenic agents, for a pure mechanical action can provoke suppuration. A lowered nutrition of the tissues, involving the hair follicles and their glands, strongly predisposes to acne.

REFERENCES.—Discussion on Acne, Bistol Meeting, Brit Med Assoc, 1894, Payne, "Brit Journ Derm," May, 1894, Jamieson, "Bit Journ Deim," Jan 1894, Kaposi "Wien Medizin Press," p 362, 1894

Synopsis—(Vol 1894, p 58) In mild cases Renault dabs the face lightly night and morning with water as hot as can be borne, applied on a sponge previously kept in 1 % Sublimate Solution—In moderate cases Sulphur Ointments (r to 10) at night, or painting with Salicylic Acid 10 parts, or Iodoform 4 parts in 30 of Ether. For comedones, pustules and much induration, he subs the face with Black Potash Soap for several nights, leaving the lather till moining, then washing with warm water and dusting with starch—Having obtained sufficient irritation, emollient sprays or lotions are substituted, e g, Bran or Staich or Mallow-water, with one third of 20 % Boric Acid solution—Dry and dust with starch—After alternating these methods for five or six weeks, treat any remaining redness with—B Sulphur Præcip Glycerine (mixed in water), Alcohol Camphorat, Aq Rosæ, āā partes æquales (Besnier)—Linear Scarification, or fine Thermo-cautery, for any indurated nodules remaining—Duhring advises

frequent alternation of remedies Sulphur is the most general remedy. He uses. B. Sulphur Pracip 5jss, Ac Bouci 5ss, Ætheris 5j, Aq Cologn 5ss, Alchohol qs ad 5ty, M. Sig—Apply the sediment as a wash twice daily. For sluggish lesions Vlemminck's Solution diluted with 1 to 3 parts of water and applied for ten or twenty minutes daily is often useful Schwimmer converts disseminated ache into diffuse inflammation by applying. B. Sulphur Sublim, Starch, āā 5ijss., Green Soap, 5v, Laid 5ij. Apply lightly for one or two hours in the evening, then bathe with warm water and dust with a powder. When desquamation sets in, the papules disappear and Ichthyol in solution is applied two or three times daily, and as ointment at night. Stelwagon removes comedones and applies Sulphur Lotions or saturated solution (alcoholic) of Boric Acid or aqueous solution of boric acid with 5 to 20 grs. Zinc Sulphate to the 0z, or aqueous solution of Resorcin 5 to 40 grs. to 0z. Sulphur and Ichthyol are better than meicurials. Leslie Phillips brushes localised chronic acide with Lysol, dabbing it off with blotting paper and painting the area with a thin layer of Kristaline. Shalfeld speaks well of the action of Losophan (p, 22)

#### ACTINOMYCOSIS.

As actinomycosis is not such a very rare complaint in man, anything relating to its successful treatment in animals is of interest to practitioners. On this point Prof. Oestertag, writing in a recent number of the "Monatshft of prakt Thierkeilkde," calls attention to the value of the Iodine Therapy of actinomycosis in veterinary practice, which was first introduced by Thomassen in 1885. Cutaneous and sub-cutaneous tumours are first cross-cut, and then treated with Tincture of Iodine at the same time Potassium Iodide (75 grs. twice a day for cows) is exhibited internally. By these means the animals are cured in from two to four weeks. Other veterinary experts (Bass, Furthmayer, de Jong) fully endorse Oestertag's views.

REFERENCE - "Prov Med Jouin," March 2, 1894

Synopsis — (Vol 1893, p 60) Meunier and Thomassen agree in regarding Iodide of Potassium as a specific Zieglei successfully treated a case with injections of Proteine Prof von Mosetiq Mooihof uses Teuerin, injecting 3 ccm of the fluid extract deep into subcutaneous fissues in the vicinity of the disease, using antiseptic precautions (p 42)

## ALBUMINURIA. Waldron B Vander poel, MD, New York

The presence or absence of albumin from the unine does not convey to the professional mind the diagnostic import it formerly possessed. For a long time it was considered sufficient to discover any proteid matter in the unine to pronounce the case of renal origin, probably a nephritis, and the worst prognosis was accordingly deduced. Now, however, it is well known that several other proteid bodies besides albumin may exist in the unine, each bearing its own significance, and the presence of many, or all, may depend on causes widely remote from

the kidneys, and possess slight, if any, prognostic value. Some observers, notably Posner and Senator, even claim that albumin exists at times in the unine of every healthy person, and that we should recognize a physiological albuminuma as we do a glycosuma, oxaluma, or indicanuma of like nature. On the other hand, clinical records abound of advanced cases of undentable renal disease where albumin has been entirely absent from the urine constantly, or intermittent in its appearance, and then scanty. This occurs notably in the circhotic, or small contracted kidney, accompanied by the widely manifested lesions of cardio-arterio capillary fibrosis, and in an obscure form, noted by Prof. D. D. Stewart, the pathology of which remains as yet undetermined from failure to obtain autopsy before secondary changes have supervened.

In the large majority of cases albumin does undoubtedly accompany, and its detection affords good ground for suspecting organic renal lesion, but modern methods of examination, and the exacting analyses of examiners for life insurance, have revealed a class of considerable magnitude in which, as just mentioned, no such significance attaches as to existing conditions, whatever the ultimate prognostic import may be. Hence we may accept the view ratified by the consensus of medical opinion on the clinical significance of albuminuma that it depends largely upon the collateral urinary conditions, viz, the presence or absence of casts, the specific gravity of the urine, the daily quantity, the amount of urea, and, as regards the albumin, its persistence, and, in some cases, the amount

Historically, we owe our first clear idea of the clinical importance of albuminum to Di Richard Bright, of England, as described in his "Reports of Medical Cases," 1827 and 1831, and the subsequent labours of Christison, Rayer, Frenchs, Traube, Sirs George Johnson, William Roberts, T. Grainger Stewart, Profs. Fraser, Saundby, Tyson, Pye-Smith, Goodhart, Gairdner, Ralfe, Senator, Von Jaksch, Posner, Viichow, Capitan, Chateaubourg, Charcot, Semmola, Millard, Da Costa, Hare, with many others equally renowned, have brought our knowledge of renal disease to its present standard

From what has already been stated, it is apparent that a study of albuminum to be in any way complete must recognize two distinct and primary forms, which differ widely in their immediate prognosis, but possess many points in common in their etiology and possibly in their morbid characteristics

CLASS I —Here are embraced all cases depending on manifest structural lesions of the renal bodies

CLASS II -A functional or tempolary form in which no local renal

lesions have been demonstrated, or, if they have, were only of minor degree or secondary results.

Class I—The Organic or Structural Form—To this class was originally limited the clinical significance of albuminum, now largely transferred to the second class—Here we find naturally grouped (a,) All those forms of renal disease commonly called Bright's disease, viz, acute or chronic congestion, parenchymatous, or diffuse nephritis, (b,) Amyloid degeneration, (c,) Pyelo-nephritis, malignant, tubercular, or syphilitic renal disease

The general history and associated urmary conditions, gross and microscopic, in the two last groups will render a diagnosis comparatively easy, so we are practically brought to considering this form of albuminum to be represented by Bright's disease. A study of this would involve traversing a field of late years thoroughly explored, and the results clearly tabulated in our standard text-books; hence little profit could accrue therefrom further than a brief survey of the pathology and etrology would place us in a stronger position to form a clear conception of the general subject of albuminuma, and possibly and towards the discovery of the factors responsible for the more obscure non-organic form

The albuminum of the organic form may be traced to four possible pathological factors which singly or combined, in part or all, may be actively responsible. These are (1,) Hæmic<sup>4</sup>; (2,) Vascular<sup>3</sup>, (3,) Circulatory<sup>6</sup>, and (4,) Intrinsic<sup>7</sup> or parenchymatous changes.

- (1.) The hæmic changes are --
- (a,) Increase of the albuminoids, from (1,) Excessive absorption from the alimentary tract due to unusual albuminous ingestion, (2,) Direct absorption from the body tissues from pathological exidations, as in pleurisy, pneumonia, etc.; (3,) Direct hamic production under the influence of a special ferment on the albumin of the serum or that of the corpuscles, (4,) Excessive corpuscular disintegration under the influence of excessive hepatic activity due to unusual stimulus from unwonted nitrogenous food ingestion, with a corresponding liberation of excess of albumin previously incorporated in the structure of these blood elements. This is in accordance with the theory evolved by the labours of Drs. Ralfe, Nocl-Paton, and Thomas Oliver, which assigns the normal origin of urea to this source under hepatic action
- (b) Increased diffusibility of the albuminoids naturally in the blood, and hence their more ready appearance in the urine
  - (4,) Hydræmia" and the opposite condition, diminished fluidity.
- $(d_i)$  Increase 2 of the salts of the blood or the reverse, or urea in any large amount

(e,) Toxic substances There may be an unusual quantity of those naturally thrown into the blood for excretion, or new and totally foreign ones. The first variety are represented by unclacid, lime oxalate, ptomaines, leucine, tyrosine xanthine, hypoxanthine, guanine, creatine, creatinine, etc., all due to diseased or disturbed gastric or intestinal functioning. Under the second class fall a number of drugs, as cantharides, mercury, phosphorus, lead, zinc, alcohol, carbolic acid, atropine, etc.

## (2,) Vascular changes -

These may be (a,) Fibroid induiation, (b,) Waxy or amyloid degeneration, (c,) Atrophic changes. The first and last classes mainly interest us here, the second class only figuring with the waxy kidney. The cardiac changes are similar to the vascular ones with a prominence of hypertrophy of the muscular elements, and later atrophy with failure in power

The causes of these cardiac and vascular changes are (1,) Altered blood states, changes in density or nutritive power, following prolonged fevers, severe hæmorrhages, as cholera, anæmia, puipura, scoibutus, typhoid and malarial fevers, syphilis, cancer, etc., (2,) Toxic substances in the blood, the same list as already given; (3,) Disturbed nervous control, (4,) Obstructed circulation

## (3), Circulatory Changes -

These affect the rapidity of the blood current, its volume, and the intiavascular tension. In general diminished rapidity and increased tension most favour albuminous exudation, although marked lowering of intra-vascular pressure seems to have some bearing, and is given the prominence by some, notably Piof Runeberg.

# (4,) Intrinsic or Parenchymatous Changes —

These involve the epithelium of the ienal glomeruli and tubules straight and convoluted, and are of the usual granular or fatty character peculiar to parenchymatous changes generally. The behaviour of these epithelia towards the albumin submitted by the blood current has been much speculated about, but little determined beyond the fact that it is due to their exercising their proper function that albumin is not a more frequent ingredient of the urine, and that when their influence is impaired or suspended, as was done experimentally by D1 M'Gregor Robertson's with atropine, albumin does so appear. In general it may be noted that the degree of albuminum is rarely high from any of the extrinsic changes, already described, until by their continuance the nutritive supply to the renal epithelium becomes impaired. The change in these bodies may be so slight as to escape detection even by the highest powers of the microscope, and hence be roughly classed

as functional, yet it suffices to render them pervious, for the time at least, to the albumin of the blood, or, as held by Dr. W. H. Porter, 14 of New York, the possible agents in the development of an isomer to serum-albumin, to which they are pervious.

Finally, mention must be made of a normal source of a minute amount of albumin in the urine from the constant and natural disintegration of these renal cells forming a part of the general process of cellular decay and reconstruction perpetually going on in the animal body. This adventitious albumin is usually too small in amount to be detectable by the customary tests, but in renal congestions and inflammations this process may become augmented so that the amount of extrinsic albumin may influence the simplest tests and be mistaken for an intrinsic or true albuminuma, or so swell the proportions of an intrinsic condition, previously existent, as to lead to take conceptions of the true morbid state present. Other sources of confusion may arise from the admixture with the urine after its secretion of a number of albumins from the presence or disintegration of blood, pus, prostatic, or seminal fluid, leucorrheea, gleet, etc.

In the same connection it is appropriate to mention what we understand by the name albumin. The forms most commonly found in the urine, and always regarded as of pathological interest, are serumalbumin and serum globulin or para-globulin. These occur in varying proportions in all albuminous urines, the latter being frequently the most abundant and exceptionally exists alone, and by response to the usual tests for serum-albumin may lead to misapprehension of the true nature of the case, and in a known instance led to the unjust rejection of an application for life insurance. Other kinds of albumin are at times found, derived, for the most part, from extrinsic sources, and possessing more often a general than a special renal import. These are classified by Sir T. Grainger Stewarth as follows. Harmo-globin, peptone, propeptone, albumoses or globuloses, acid albumin or syntonin, alkali-albumin, fibrin, lardaccin, and finally mucin, or as some later investigators claim nucleo-albumin

In the functional form of albummuria the same changes are operative as in the organic, that is, the extrinsic ones, and possibly in a certain degree the intrinsic ones also, the difference between the two conditions being simply one of degree. For example, we have seen that certain hamic changes may be provorative of an albummuria which may never advance to any degenerative or inflammatory renal changes, but always remain extrinsic and functional, or again by its persistency, aided, perhaps, by certain constitutional or external influences, some of the other lesions, vascular, circulatory, or intrinsic

may be developed and a true organic case eventuate. The same order of events may be traced if the morbid chain be picked up in the respective links which represent either the vascular or circulatory change, but with a progressively increasing probability of structural renal disease eventuating as we advance. In other words, if the condition causing the albuminuma be not too persistent, and especially if it remain uncomplicated, no more serious consequence need be feared than an intermittent, cyclic, or functional form, but if these two provisos fail us or influences constitutional or external prove unfavourable a true nephritis is inevitable.

ETIOLOGY — The same causes, local or constitutional, may, with very few exceptions, lead to either the structural or functional form of albuminuma. The greater or lesser intensity of the local expression of the morbid process, its duration, the personal susceptibility of the subject and the surroundings largely determine which type is to follow

Predisposing and exciting causes are found --

(1) Predisposing causes --

These embrace  $(a_i)$  Climate,  $(b_i)$  Sex,  $(c_i)$  Age,  $(d_i)$  Heredity,  $(e_i)$  Habits,  $(f_i)$  General constitutional condition.

(2,) Exciting causes —

We have here  $(a_i)$  Constitutional,  $(b_i)$  Local, and  $(c_i)$  Obstructive

- (a,) Constitutional —
- (1,) Acute febrile and inflammatory affections, scallet fever, measles, varicella, diphtheria, typhus and typhoid fevers, cholera, yellow fever, malaria, pneumonia, peritonitis, traumatic fever, acute articular iheumatism, gout, syphilis, erysipelas, numps, pertussis, etc
- (2,) Chionic affections, tuberculosis, pulmonary or otherwise, cancei, canes or neciosis, anæmia, debility, dyspepsia, scurvy, pyæmia, purpura, chronic hepatic or ienal congestion from caidiac disease, and ceitain skin diseases.
  - (3,) The pregnant, puerperal, uric acid, or oxaluiic state
- (4,) Nervous disorders, delirium tremens, chorea, epilepsy, apoplexy, exophthalmic goitre, hysteria, influenza, and Stewart reports a case accompanying infantile paralysis, and also one with multiple sclerosis, and again with the general paralysis of the insane
  - (b,) Local -

Certain poisons are found to be operative here. Canthaudes, man ganese, oxalic acid, cobalt, aisenic, nickel, mercury, zinc, lead, iodine, sulphuric acid, turpentine, hydrochloric acid, santonine, carbolic acid (creasote), juniper, salicylic acid, ammonium, alcohol, iodoform, etc

(c,) Obstructive -

Under this term is intended to be embraced all causes interfering

with the venous blood return from the ladneys. In males this may follow urethral stricture, enlarged prostate, tumours, or inflammations of the bladder, calculi, etc., in females pregnancy, tumours or displacements of the uterus or ovaries, pelvic inflammations, bladder diseases, etc., and in either sex twists or intussusceptions of the ureters or a calculus there lodged

Class II—The Functional or Non-organic Form of Albuminusia — The characteristics of this class have been already brought out, as well as its etiology, and the pathology, if any, may be considered to exist. Many observers of world-wide repute totally reject this form and claim for it a distinct pathological basis in the renal or intimately associated parts. Millard, Jackson, Jasiewicz, Wood, of Harvard, Winternitz, Plosz, A. H. Smith, W. H. Porter, are some of the well-known names of many nationalities prominently linked with this view. We can bring under a three-fold heading all the clinical varieties of this form of albuminuma reported by different writers. viz., (1,) Simple albuminumia, (2,) Unic acid or oxaluric form, (3,) Neurotic type.

- (1,) Simple albuminuoia 18— Here would fall all cases presenting no preceding or accompanying symptoms indicating morbid disturbance of the digestive, circulatory or nervous functions, giving no indication from unnalysis of organic renal lesion and in which the existence of the albuminum is only revealed accidentally through examination by the family physician, or more often by the examiner for life insurance. These are the true functional, physiological or chronic albuminums. The discoverable causes are, (1,) Dietetic, (2,) Exposure to cold or cold bathing, (3,) Muscular activity. (4,) Mental strain or worry, prolonged brain activity, (5,) Adolescence
- (1,) Dietetic.—(a,) The mere ingestion of food suffices in those piedisposed; (b,) An idiosynciasy exists in some towards certain food articles, as eggs, cheese, buckwheat cakes, pastry, meats, etc. (2,) Exposure to cold, etc.—The influence of these agencies has been clearly proved by the observations of Sirs G. Stewart and George Johnson (3,) Muscular activity. —To this class belong all states, conditions or pursuits which involve any tax on the physical powers, as football playing, soldiers on the march, pedestrianism, blowing of wind instruments, parturition, and exceptionally the erect posture. (4,) Mental strain, etc, particularly observable in business and professional men. (5,) Adolescence —This period of vital activity seems to be attended by an unstable functional state of all the organs of the body, manifested in the kidneys by trivial causes being provocative of albuminuria.

The following changes dependent on the above influences are considered immediately responsible for the result (1,) All the hæmic changes detailed under structural form; (2,) Possible transudation of albumin due to altered calibre of the vessels or rapidity of blood current depending on reflex nervous influences; (3,) An actual glomerulo-nephritis

- (2,) The Uric And or Oxaluric form 24—The daily quota of urine remains normal but the amount of solids is materially increased, furnishing a concentrated urine-sp gr 1022-28-36 Chlorides normal or increased, never diminished, phosphates and urea normal or increased, casts hyaline or epithelial. Albumin usually small in amount, most abundant early in the day, possibly absent later. Two factors mainly responsible (1.) Excess in an insufficiently mixed diet, (2,) An inherited or acquired sensitive condition of the liver and kidneys, called the uric acid or lithæmic diathesis, which ienders them prone to functional disturbance The causes of the disturbance of the renal function Mechanical irritation from the sharp crystals of uric acid or lime oxalate These if lodged may produce persistent albuminuma, (2,) Altered blood pressure in the renal vessels from reflex influences due to mutation of the terminal filaments of the pneumo-gastric, (3,) Chemical blood changes Frequently no constitutional symptoms prevail, but commonly a dyspeptic history is given with pronounced nervous and circulatory disturbances, sometimes a rigid high tension pulse warning of impending organic renal changes.
- (3,) Neurotic type 25.— The diseases operative here have been already enumerated. The influence of the cerebro spinal system over renal functions is shown by the experimental evidence that puncture of the floor of the fourth ventricle near the glycosuric centre, lesion of the cerebral peduncles and section or irritation of the spinal cord will produce albuminum. The renal circulation is so modified as to cause albuminuma by direct nervous influences conveyed from the brain or cord through the splanchnic, coeliac, and renal nerve plexuses. Under this class will probably fall albuminumas, attending (1,) Extremes of temperature 26, (2,) In the newly born, (3,) After anæsthesia.

The prominent clinical features of these functional albuminunias are worthy of careful scrutiny, as a diagnosis can often be reached from the organic form by exclusion only—

(1,) Pulse rate and tension—The rate is usually normal, tension feeble. If both are constantly increased we may justly anticipate a commencing cardiac hypertrophy and arterio-sclerosis.

- (2,) Albumin The amount and persistency are of little moment. The microscope and clinical history will usually determine the kind of albumin present. Mucin (nucleo-albumin) offers the most fruitful source of error, "present in all urines, healthy or morbid" (S11 Vm. Roberts), "of the same diagnostic import as albumin if persistent or in large amount" (W. H. Washburn)
- (3,) Unca This is an exponent of the working capacity of the kidneys, influenced by the quantity of fluid consumed, kind of food, exercise and digestive state. It should be of normal amount here
- (4,) Casts 28 These bodies, derived from albuminous or fibinous exudates from the blood, or, as now held, from perverted cellular changes in the epithelium of the renal tubules, are found with most renal congestions and inflammations, but why at times present and again absent under the same apparent physical conditions we cannot say Usually of grave import, yet recovery is possible, and Charcot 39 states that hyaline ones may exist in normal urine.
- (5,) Specific Gravity.—If high, we may safely assume the kidneys are functioning properly, particularly if the daily quantity is normal
- (6,) Daily Quantity.—This represents the filtration activity of the kidneys. It should be normal here, influenced solely by the usual causes, viz, atmospheric temperature and moisture, and the diet
- (7,) Colour —Varies from pale to dark or even black. This should depend on the concentration and so be of importance in determining what the daily quantity should be; but it may be influenced by articles of diet, certain drugs, or abnormal products from the patient's own economy.
- (8,) Phosphates, Urates, Chlorides and Oralates—These have been already considered, or are of no immediate importance.
- (9,) General appearance—We may notice frequently a peculiar pallor, some disinclination to exercise, poor circulation, transient cedemas of feet or eyelids, the same as in the organic form but less intense.

PROGNOSIS. — My personal feelings towards these cases are distrustful, and I relax these feelings only when the albumin has been absent for weeks or months consecutively and the urine becomes entirely normal in other respects. Undoubtedly cases may persist for years and never appear to go further towards organic disease; but the natural tendency is not so benign, and I would pronounce these cases as suspicious and worthy of careful supervision and demanding a guarded prognosis.

REFERENCES—" "Viichow's Aichiv," lxxiv,; <sup>2</sup>Albuminuia in health and disease, New Sydenham Society, 1884, <sup>3</sup>D D Stewait, "Amer Jouin Med Sciences," Dec 1893, "Philadelphia Med News," April 14, 1894, p 393, 4 Semmola, "Amer Medico-Surgical News," April 14, 1894, p 393, \*Semmola, "Amer Medico-Surgical Bulletin," May 15, 1894, p 601; R Van Santvoold, "New York Med Record," Jan 14, 1893, p 36, Weber, "Amer Jouin Med Sciences," Sept 1894, p 286, 5 Gull and Sutton "Transactions Medico-Chiungical Soc," vol 1, 1872, p 273, 6 Lectures on Bright's Dis," Saundby, 1889, p 45, 7 Hughes and Carter, "Amer Jouin Med Sciences," Aug—Sept 1894, pp 179—193, and 268—285, 8 Ralfe, London "Lancet' vol 1, 1886, 9 "Jouin of Anatomy and Physiology," Oct 1885, Jan 1886, 10 Oktober 1880, p. Jouin, Nov 27, 1886, \*\* Rees, Guy's Hosp Reports, 1843, p 326, "Stokois-Recherches experimentales sur les conditions pathogeniques de l'Albuminuiie," 1867, 12 "Viichow's Alchiv," ix, 1856, s 245, 13 M'Giegoi Robertson, "Glasgow Med Journ," 1884, 14 W H Poitei, "International Chinics," vol. iii, series iii, 15 Lectuies on Albuminuiia, p 2, 16 "New York Med Journ," June, 22, 1893, 17 London "Lancet," March 8, 1890, 18 Munn, "New York 1893, <sup>77</sup> London "Lancet," Maich 8, 1890, <sup>13</sup> Munn, "New York Med Rec," vol xv, Rodeit's "Medical Chionicle," 1884, Washburn, "Philadelphia Med News," 1893, vol 1., p 341, vol 11, p 119. Shattuck, "Boston Med and Surg Journ," June 21, 1894, <sup>19</sup> Ch Finot, "La Semaine Médicale," Feb 17, 1892, Biunton Phaimacology, etc, p 435, <sup>20</sup> Stokois-Rechei etc, 1867, <sup>21</sup> Johnson, "Brit Med Journ," vol 11, 1879, p 928, <sup>22</sup> "Annual Univ Med Science," 1893, Gliswold, "Philadelphia Med News," June, 1884, <sup>22</sup> Tiemman, "New York Med Journ," Maich 17, 1894, <sup>24</sup> Da Costa, "Amei Journ Med Sci." Jan 1893, "Biaithwaite's Retrospect," July, 1893, <sup>25</sup> Giay, "Ainei Med Surg Bul" May 15, 1894, p 597, <sup>26</sup> W B Davis, Albumininia in the appaiently healthy, R. Clark, Cincinnati, Ohio, <sup>27</sup> Robeits, Ulinary and Renal Dis,, <sup>28</sup> Clark, London "Lancet," vol 1, 1886, <sup>29</sup> Bright's disease, Charcot, p 33, <sup>3</sup> Maguice and Broadbent, London "Lancet," tolon "Lancet," London disease, Charcot, p 33, 3' Maguire and Broadbent, London "Lan-"Lancet," March 18, 1893, Ralfe, Ibid, Feb 25—April 8, 1893, Gairdner, Ibid, March 11, 1893, Biaunau, "Bit Med Journ," 1891, vol. 11, p 136. Pye Smith, Ibid, Aug 1889, Washbuin, "Bithelight Med Med Med Washbuin," "Philadelphia Med News," 1893, vol 1, p 341, vol 11, p 136, Tyson, London "Lancet," Maich, 1893

Synopsis -- (Vol 1894, p 63) Paul, Dujardin Beaumetz, and Germain See, have brought forward Strontium and Calcium They may be prescribed as follows Strontium Lactate 4 gims per day, Stiontium Bro mide 4 grms per day, Calcium Bromide 4 grms per day, Chlorbromide, 4 gims

#### ALCOHOLISM.

Allan McLane Hamilton, M.D., New York. Clark treats the catarrhal gastritis of alcoholism with hot Wiesbaden Kochbrunnen Water.

Bellamy,2 of Colorado Springs, recognizes the following treat

ment for delinium tremens. A primary Calomel Purge and 20 grains of Trional mixed in water, with 10 minims of Trioture of Capsicum to hasten absorption, and at the same time a Hot Bath if the patient's condition will warrant it. If restraint is indicated it is to be applied, and if there is no abatement in the delinium 10 grains of trional are to be given in thirty minutes. If quiet is not obtained in an hour 20 grains more are added. In nearly every instance of the reported cases sleep followed the administration of 50 grains. Where the heart was weak Digitals was administered, and for the treatment of convalescence mixtures of the vegetable bitters, Strychnine and Valerian were prescribed. In all cases forced feeding, in small quantities often repeated, was followed

REFERENCIS - ""American Medico-Surgical Bulletin," August 15, 1894, ""New York Med Johnn," July 21, 1894

Editorial

Regarding the use of Strychnine Nitrater in alcoholism experience shows that simultaneously with the use of this remedy, the claying for alcohol in inebilates diminishes and in a few days is completely gone, and through the withdrawal of the poisonous beverages and the tonic effects of the strychnine there is a more or less rapid restoration to sound physical health and of the mental powers. But as most of those treated have relapsed within from one to eleven months, the inhibiting power of the remedy is not permanent, and while it temporarily relieves the distressing and overwhelming craving for more stimulant and promotes a return to normal health, in which condition the patients may continue to remain, yet they still lack the necessary willpower to enable them to avoid the dangers which they know will precipitate a return to their previous enslayed and degraded condition. So that, while it is fully within the power of medical science to restore these patients to temporary health, strychime does not - as doubtless no drug treatment ever will-prevent the possibility of further relapses, although we can always depend on it to arrest what would be a prolonged debauch if its aid is early resorted to

Di. Twitchell' aims at assigning to delinium tremens its true importance as a disease. As to actiology he says that the disease often begins one, two, or three days after the individual has ceased drinking. No single drinking-bout ever produced delirium tremens. The chronic drinker may develop it without ever having been drink. Usually there is an exciting cause apart from alcoholism—such as inclement weather, an accident, or an attack of pneu-

monia oi othei acute disease. He divides its clinical history into three stages—the incipient stage, the violent stage and the typhoid stage. In the incipient stage the sufferer fully approciates the character of the disease that is approaching He has the "horiois" The violent stage begins with the tiue delirium, sometimes it is ushered in with a violent epileptoid convulsion, hallucinations clowd upon the mind, the tremor is very pronounced The great excitement rarely lasts longer than three or four days, but at the end of this period the exhaustion does not always lead to natural sleep, it often leads to a peculiar typhoid After the violent stage is well developed the prognosis becomes grave Death may take place in a couple of days Pneumonic and suigical cases usually die in this stage, so also do the febrile cases of Magnan In the typhoid stage the delinum becomes quiet. The condition may last six of eight weeks, or even longer. A small proportion of cases recover even at this stage of the disease, the great majority die. This sequel to the violent stage of delinum tremens is by no means raie In the diagnosis the conditions to be excluded are, acute alcoholic intoxication, psychoses made prominent by drink, alcoholic insanity, delinium of infectious diseases, and mania. In his remarks on the pathology D1 Twitchell says "Whatever finally proves to be the true explanation of the phenomena of this disease, I believe it will be found that delinium tremens does not, and cannot, occur in subjects with healthy kidneys". In his treatment he says it is wise to begin with a pulgative. He suggests that Hot-air Baths would be of great value in the typhoid stage He recommends Capsicum or some similar drug to aid in overcoming the nervousness that seems associated with the disturbed stomach He states that at the City Hospital good results were obtained from Chloral Hydrate in 30, 45, or 60 giains every halfhour to three quarters of an hour, until the patient was asleep Shackles are a necessary evil, in the latter stage it is bad practice to use them Strychnine is a most valuable drug in the typhoid stage. He says the greatest difficulty in treating delinium tiemens is to persuade the attendants that the patients are really human beings suffering from a disease

Dr D W Cheever,<sup>3</sup> recommends in the incipient stage of delilium tiemens the employment of simple lemedics, such as Coca, Camphor or Asafœtida. Coca wine is extremely useful in counteracting the excitability produced in slight cases of delirium tremens. Camphor likewise is very grateful and very soothing to

the patient Asasætida is a much disused but nevertheless an extremely valuable agent. It should be given largely to be of any effect—10, 20, or 30 grains, and its advantage is that it is quieting, and disposes to sleep. It is also to a very marked degree stimulating, and it is also somewhat relaxing to the bowels. These three qualities render it extremely valuable in slight nervous affections resulting from incipient delirium tremens. Occasionally a certain effect may be got from counter-irritation applied over the pit of the stomach, which sometimes affords great relief in this nervous state.

References — " Therap Gazette," Ma ch 15, 1894 , " "Practitioner," March, 1894 ,  $^{\rm 3}$  Ibid , Dec 1893

Synopsis — (Vol 1894, p 66) Mann prescribes B. Quinia Sulph gr 2, Zinc Oxide gr 2, Strych Sulph gr  $\frac{1}{4}$ , Assenic gr  $\frac{1}{16}$ , Capsicium gr 2 M Ft pil j Sig — j pill three times a day At the same time he uses hypodermically B. Strych Nitrat gi j Aquæ dest 55s M Sig — 8 m daily for eight days, 4 m daily for another eight days. For morning nausea 2 or 3 drops of Ipecacuanha Wine on the tongue, fasting For the first few days rest in bed with diet of Milk and Meat Juice Hydrotherapy and Electrotherapy are employed To induce sleep B. Tr Opil deod, Fl Ext Hyoscy, Chloral Hydrat, Pot Brom at 5j, Tr Capsici 5s3, Tr Aconit Rad m v, Aq Menth Pip ad 5iv, M Sig — 2 tablespoonfuls at bed time for a few days only, freely diluted with water If delirium tremens threaten, give for two or three nights B. Hyoscin Hydrobrom gr j, Aq dest 5ix, Sp Vin Rect 5j, M et ft hypodermatic solution Sig — Dose from 5 to 10 m p r n Steell considers Digitalis the one remedy for alcoholic heart failure For dipsomania in general B. Tr Capsici m 10, Sod Brom gi 10, Sp Ammon Aromatic 5j M To be taken in a little water three times a day

# ALOPECIA AREATA

T Colcott Fer, MB

Ferras' treats both by local and internal remedies—He gives boths of strong Sulphur Water lasting thirty to forty minutes and followed by Massage for ten to twenty minutes, and Hot Spray lasting for three to five minutes—Also a half pint of sulphur water is taken morning and evening—Locally, he applies timeture of roch and hot sulphurwater sprays

Allan Jamieson recommends Kneading of the Scalp backwards and forwards several times daily as an adjuvant to medicinal means of treatment in the early stage of A prematura.

Leistikow<sup>2</sup> piepaies a stick composed of chijsaiobin 30, colophonium 5, ceia flava 35, olive oil 30 paits, and with this jubs the affected paits every evening. The pait is washed clean with olive oil every moining, and any undue illitation is calmed by zinc ointment. He legalds **Chrysarobin** as the best remedy.

REFERENCES.— "Ann. de Derm et de Syph," t. iv., No 10;

"Therap Gazette," Jan 1894, ""Monatsch f prakt Derm," Jan. 1894

Synopsis — (Vol 1894, p 68) The value of arsenic is doubtful White prefers a mixture of 51 Croton Oil in Hss—H1 of Oil of Turpentine found the French essence of companion less effective. Fox and Morrow find carbolic acid unsatisfactory, the latter physician tried pyrozone with Piffaid piefers ordinary blistering collodion, but has found Carbolic Acid, 10% solution of Iodine in Collodion and a caustic solution of Hydrogen Peroxide successful Monson advocates blistering edges of patch with Hydiarg Perchlor gr 5, Salicylic Acid 5J, Collodion 5J, and then applying Salicylate of Mercury in Lanolin Jackson speaks well of the stronger water of Ammonia Duhring likes Carbolic Acid 5J, Alcohol 5vij, and in obstinate cases blistering with carbolic acid Chrysarobin is better Epilation of the margin of a spreading patch is generally thought well of Hallopeau uses Oil of Wintergreen I part, Ether 3 parts Oil of Cinnamon is in good repute Butte finds Iodised Collodion effective where patches are few and sharply circumscribed, but taking alopecia all round he finds friction with Oil of Cade better Ehrmann gets good results from a feeble Faradic Current Bellasera advises that hair be cut thrice weekly just around the patches, and at night an ointment applied of Naphthol  $\beta$  12 to 14 grms, Balsam of Peru I grm, Vaseline 100 grms, and by day an alcoholic solution of the same Brocq notes that in the decalvans variety seborrhosa of the scalp is often present and should be treated with Sulphur while dealing with the alopecia Prentiss commends Pilocaipine as a scalp stimulant, given either in small and long continued doses by the mouth or by the rapid hypodermic method, using r cgim two or three times a week. Seeger suggests brushing the hair radially several times daily, exercising the occipitofrontalis muscle, application of Frictional Electricity twice daily, stroking nape of neck with a coarse bathing glove to stimulate erectes pilorum It parasitism is suspected apply once weekly R Ethereal Oil of Cloves 5 drops, Pure Water of Ammonia and Pure Glyceline of each 80 m, Tincture of Sabadilla, 51 To be washed off in from fifteen to thirty minutes

#### AMENORRHŒA.

Talley and Bloom iepoit gratifying results attending the use of **Oxalic Acid** as an emmenagogue. The latter administers it as follows—

Talley, however, believes that while an efficient emmenagogue and a capable about facient, oxalic acid is not to be regarded as a perfectly safe drug, as he met with a case in which toxic symptoms followed the ingestion of three doses of ½ grain each, repeated at about four-hour intervals

The action of oxalic acid seems to be that of a direct stimulant to the uterine mucous membrane. It is, therefore, applicable to the treatment of amenorihoea of the anæmic as well as of the plethoric type Upon the pregnant uterus oxalic acid is capable of producing powerful uterine contractions, which terminate in the expulsion of the product of conception. This was observed in two cases of early physiologic amenorihæa in which oxalic acid had been administered, the diagnosis of pregnancy not having been made.

Talley considers it a valuable drug in the treatment of amenorrhoa, but one that should be given guardedly, carefully watched, and only prescribed when the diagnosis of pregnancy has been excluded

Panecki³ has found **Electricity**, and particularly the faradic current, the most successful means of dealing with amenorrhœa. It is necessary that the poles should be introduced into the uterus and be allowed to act there. This treatment is well borne, and the current can be increased at each sitting, the number of the latter required averaging from five to thirty, and their duration five to fifteen minutes during successive days.

For amenorshœa4 —

B. Hydrargyrı Perchlorıdı gr 3 Potassıı Carbonatıs gr v Sodu Arseniatis gr J Extracti Nucis Vomicæ gr v Feiri Sulphatis Exsiccatæ gr xxx Misce et divide in pilulas xxx I pill to be taken before each meal

REFERENCES — "Therap Gaz," March, 15, 1894, "Med News," October 14, 1893, "Therap Monatsh," March, 1894, 4" Pract," June. 1894.

Synopsis — (Vol 1894, p 70,) Carrière finds that Iron, combined with Ergot, gives better results in young girls than iron alone Trousseau employed Honey of Iron with good effect In some cases non (especially the Tartrate of Iron and Potassium) acts better if combined with Emmenagogues In chlorotic cases if general treatment and change of climate fail, Inhalations of Oxygen, and Massage may succeed, Mugwort, Saffron and Apiol are of special value, 3 cupfulls of infusion of mugwort (strength, 5 grms, to one litre of water) may be given in the day Pelletan finds Apioline in doses of 20 cgrms (given in capsules), a true stimulating emmenagogue in atonic amenorrhoca (p ri)

### ANÆMIA and CHLOROSIS.

Concluding a paper on physical test in the treatment of chlorotic anæmia, Dr. Taylor says "What I wish especially to lay stress upon is that the classical treatment by Iron, or by iron and purgatives, is not assisted, but much counteracted, by the prescription of exercise. Against fresh air I have nothing to say so long as it does not involve exercise, either by walking or riding. It is, of course, partly a question of proportion the worse the case the more absolute should be the rest. In a slighter degree of anæmia, or one already recovering, carriage exercise may be allowed, while in the severe forms the patient may be with advantage kept in bed entirely, the most

certain means of keeping a patient absolutely at lest. An intermediate prescription is that the patient shall get up only for three or four hours in the afternoon?

Forcheimer, criticises Kobert's conclusion as to the reduction products of hæmoglobin giving better results than hæmoglobin itself. Either of the two bodies hæmol and hæmogallol (the former a zinc, the latter a pyrogallol derivative of hæmoglobin) gives good results in the treatment of chlorosis, but unless some other reasons than those advanced are given, they cannot be pronounced preferable to hæmoglobin itself. Indeed, in the method of treatment to be discussed, beef-juice, blood riself, or blood conserves do just as well as anything else. The new preparations are especially available, in that they can be given either in wafers or, as Kobert states, in chocolate tablets, the latter form being especially valuable for children.

Forcheimer's experiments lead him to believe that the anæmia of children, in whom we find such enormous variations in the quantities of hæmoglobin following intestinal troubles, is most effectually removed by arsenic preparations, and that the Arsenite of Copper is very valuable in such cases and also in adults, where, as is sometimes the case, the bowels are loose and the intestinal catarrh can be looked to for the cause of hæmoglobin diminution

The best possible results controlled by blood analyses as to time, quantity, and permanency, are obtained by combining an antiseptic with a blood preparation. Forcheimer gives 5 grains of Hydronaphthol or Salol before meals, and the same quantity of Hæmogallol immediately after the meal. When these preparations cannot be obtained, large quantities of Beef-juice can be substituted, or any of the many preparations which contain blood, precaution must be taken to see that they really do contain blood in case the latter are used.

Second in utility comes the administration of the antiseptic before the meal, and some form of non after the meal, Carborate of Iron has given better results than any other preparation Forcheimer has used

It is difficult to decide as to the relative ments of iron or antiseptics when given separately, it is certain, however, that the antiseptics will succeed when given alone in many cases in which non fails completely

Stockman, 3 in a most interesting paper on "The Treatment of Chlorosis with Iron and some other Drugs," has given Ferrous Sulphide in keratin capsules for the purpose of effectually disposing

of Bunge's theory of sulphuretted hydrogen by non absorption Only two cases were treated in this manner, but in these the results were so gratifying that they encourage further trial in this direction

Iron Hypodermically in Chlorosis—M Doil, as a result of extensive trials of the hypodermic injection of Ammonio-citrate of Iron in cases of chloro-anæmia, finds that this salt gives excellent results—Patients are able to tolerate large quantities without inconvenience, and its therapeutic effects speedily become manifest in an increase of the hæmoglobin contained in the blood, accompanied by marked improvement in the patient's general condition—The daily dose usually employed was about 5 centigrammes, dissolved in I gramme of water, and injected into the interscapular region

In anæmic cases the following may be employed 5 --

M Sig.—Teaspoonful three times a day

REFERENCES — " Practitioner," September, 1893, 2" Therap. Gazette," Jan 15, 1894, 3" Brit Med Journ," 1893, 4 Ibid, Supplement, p 72, vol 11, 1893, 5" Medical Press and Circular," January, 1894

# ANÆMIA PERNICIOSA.

Stengel advises that under no circumstances should **Arsenic** be pushed so far as to produce diarrhea or other gastro-intestinal symptoms, as the loss of ground from an attack of diarrhea may more than counterbalance the gain secured by weeks of judicious treatment. The tolerance of the drug is sometimes remarkable, but there is little need of increasing the dose beyond 15 drops, even when it is well borne.

The patient should always at first be confined to bed, and should be required to use the bed-pan and urinal. The diet should be nutritious and easily assimilable. Meats should not be given too freely, on account of the diminished secretion of hydrochloric acid, nor, on the other hand, should sugars or starchy food be allowed in large quantity, from their tendency to fermentation. Symptomatic treatment is generally required to aid digestion and to allay gastric irritation. For the former purpose Hydrochloric Acid is often essential, and should always be tried where gastric fulness and fermentation are complained of. Where vomiting is severe small doses of Bismuth Subnitrate (5 grains) with Cocaine (30 to 15).

giain) act more happily than any other remedies; and it has seemed that arsenic could be administered more freely and continuously with than without these adjuvants. They are best administered some time before the meal

Lavage may prove of great advantage in controlling obstinate vomiting and in improving the digestive power. In cases where gastric atomy seems prominent and the patient's appetite is poor, bitters may be given with advantage before meals

Intestinal lavage has been less frequently practised, and has not as yet yielded definite results. The use of intestinal antiseptics, such as salol, naphthol, and carbolic acid, has been highly lauded, but the results are thus far uncertain. Free use of purgatives is distinctly less advisable than in chlorosis, excepting in the cases of parasitic permicious anæmia. Enemata of suppositories will generally be sufficient for the purpose of securing action of the bowels, and beyond this we should not attempt to go.

Sooner or later in pernicious anæmia there comes a time when remedies seem altogether powerless

At this stage measures directed to assist the circulation are even more essential than arsenic, and of these not the least powerful is systematic Massage. A still more advanced case would call for injections of water or of blood. The safest and perhaps the best method would be the hypodermic injection of normal Salt Solution in large quantities (2 pints to 2 quarts). The transfusion of blood itself has been practised by a number of investigators, and some, as Brakenridge, report remarkable improvement following the operations. It is doubtful, however, if blood-serum or blood has any great advantage over salt-water, and certainly the danger of fibrin-ferment intoxication and other accidents would militate against their use

During convalescence **Iron** is a valuable adjunct to assenic. In the earlier stages of the disease, however, it is not only of no value, but often disagrees decidedly

REFERENCE -"Therap Gazette," June, 1894

Synopsis — (Vol 1894, p 72) Smart places the chief Iron Preparations in the following order of value (1, Sulphate, (2,) Carbonate (saccharine), (3,) Protochloride, (4,) Phosphate, (5,) Protoxide In cases combined with atonic dyspepsia, the Sulphate shortly after meals and Ac Hydrochlor Dil, II 15 to 25, just before meals For acid dyspepsia, Soda Bicarb and Potass Carb, āā gr 10, instead of the acid Carbonate of Iron, gr 20 to 30 t d during or after meals is useful Protochloride in very small doses at first to avoid nausea Phosphate is best ap paiently in neurotic cases Arsenic combined with Iron is better than alone, except in pernicious anæmia Transfusion of Healthy

Blood is gaining favour in painicious anæmia, and where there is splenic enlargement Nitrate of Iron and Quinine are given in full doses. Rieder uses Blaud's Pills and Albuminate of Iron in pure chlorosis. If no digestive catarih exists, Schultz gives Flowers of Sulphur with Sugar of Milk as much as will cover the point of a penhinfe thrice daily. Traugott advocates Hot Air Baths in chloro-anæmia. In pernicious form, Gibson gives Beta-Naphthol 2 giains t. d. post cib. with Bismuth Salicylate gr. r. Chalybeate Lemonade. B. Tr. Ferr. Perchl. Siv., Ac. Phosph. Dil. Siv., Tr. Limon. Sij., Syi. simp. ad Svj. Sig.—2 teaspoonfuls in a small tumblerful of water after meals. For anæmia with constipation. If. Ext. Nuc. Vom. gr. \( \frac{1}{4} \), Ferr. Sulph. exsic. gr. j., Aloin gr. \( \frac{1}{4} \), Pulv. Myrrh. gr. \( \frac{1}{2} \), Pulv. Ipecac. gr. \( \frac{1}{2} \), Ext. Gentianæ gr. ij., M. et ft. pil. To be taken each night. Ewald's method of rendering Iron assimilable. B. Tr. Ferr. Perchlor Sj., Aq. Albuminosæ (i.e., white of egg. I. pait, water. 5. parts), Syi., M. Ft. sol.

### ANÆSTHESIA.

From the report of the committee on anæsthesia at the Beilin Suigical Congress<sup>1</sup> it would appear that the dangers of **Chloroform Inhalation** do not lie in any accidental impurity, indeed, the facts seemed to point the other way, and that the danger is directly proportionate to the purity of the chloroform. This consideration has lately led to a different mode of administration. It has been given more slowly, and occasionally **Atropine** and **Cocaine** have been used with it. As regards accidents, two hundred and fifty-five severe cases of asphyxia have occurred, and tracheotomy had to be performed three times. **Ether** has shown itself the least dangerous anæsthetic, ten times less dangerous than chloroform, but it is not without its shady side, it is dangerous in lung affections.

In a "Therapeutic Gazette" editorial the writer expresses his conviction that not only does valvular disease not contra-indicate the use of anæsthetics, but, on the other hand, there is even greater reason for their employment in persons so afflicted than in those who are in ordinary health. The shock of the operation and the struggling from pain are both of them factors which will more seriously affect the heart than will any anæsthetics if cautiously administered, and those who have had the most experience as anæsthetizers are able to recall many instances in which patients with heart disease have taken the anæsthetic quite as well as those who have not had this trouble Even if valvular disease is associated with well-marked atheromatous changes in the blood-vessels and corresponding curhotic processes in the kidney, anæsthetics are probably preferable to no anæsthesia when operations are necessary. While it is true that ether at least, distinctly increases cardiac action and arterial pressure. this increase is raiely sufficient in degree to do any haim Chloroform is probably, in most of these instances, the safer ancesthetic in

107

one respect—namely, that it raiely produces the early stages of struggling which are often so characteristic of ether, but, on the other hand, any suspicion of fatty or other degeneration of the heartmuscle should force us to the employment of ether rather than Auscultation of the heart will generally give us some indication as to the character of these cases It will indicate whether the patient has accompanying his valvular lesion marked cardiac dilatation and enfeeblement of the heart-muscle A therapeutic point to be remembered is that it is not the loudness of the murmur that contia-indicates the employment of an anæsthetic, it is the condition of the heart-muscle which must be taken into consideration. If the apexbeat is almost indistinguishable and the second sound muffled and feeble, if percussion indicates that marked dilatation is present, even if the mui mui is heard with difficulty, we believe that the contra-indication to the anæsthetic is very positive—so positive that it should not be administered nor the operation undertaken without the physician impressing upon the patient and his friends that grave danger exists On the other hand, the evidence of cardiac hypertrophy, as shown in the forcible impulse of the heart against the chest wall and the sharp sounds of the aoitic valves will indicate that anæsthetics can be given almost with the safety which is present when healthy men are anæsthetized

Kiogius3 describes a new method of producing Cocaine Analgesia, which is based on the fact that when a solution of this agent is injected into the subcutaneous tissue near to a nerve trunk it causes loss of sensation over a large zone corresponding to the peripheral distribution of this nerve. In order to reach the selected nerve trunk with certainty, and to apply the cocaine to several of its branches at the same time, the author in injecting the subcutaneous tissue, passes his needle across the long axis of the limb, and as the needle is thrust along, the solution is gradually discharged. An injection made in this way across the root of a finger will, in the course of ten minutes. result in analgesia of the whole digit, not of the skin only, but also of the tendons, the periosteum, and all the deep structures. If one or two injections be made transversely near the wrist, a considerable extent of the palm of the hand may be thus rendered analgesic. The sensibility of the ulnar side of the hand as far as the roots of the last two fingers may, it is stated, be abolished by injecting a solution of cocaine over the ulnar nerve at the back of the elbow By injecting over both supraorbital notches, analgesia may be produced in the whole of the middle poition of the forchead The analgesia caused by this method of using cocaine attains its greatest intensity and extent from five to ten minutes after the injection, and is maintained for a quarter of an hour or even longer. The author injects only a weak (2 per cent) solution of cocaine, and keeps the patient recumbent for at least a quarter of an hour after the operation. This method has been practised with success at Helsingfors in two hundred minor operations, such as amputation of the fingers and toes, excision of palmar fascia, and phimosis.

REFERENCES -- 1' Therap Gaz," August 15, 1894, 2" Therap Gaz, March 15, 1894, 3' But Med. Jouin"

Synopsis—(Vol 1894, p 75) Subsequent nausea said to be promptly relieved by a mixture of Creasote, 4 diops in 2 ounces of Lime-water

# ANCHYLOSTOMIASIS.

F M Santwith, MD, Cairo

Anchylostomiasis in four hundred Egyptian patients\*—All that is required to produce anchylostomiasis in man or monkey is to introduce into the stomach a inicroscopical quantity of earth containing embryos of the parasite in its rhabdite form, and then to patiently await the result—Muddy water, such as the Egyptians prefer to drink, will act as a vehicle if the embryos have not been too long in it—Unwashed vegetables, fouled by human ordure, and especially unwashed hands, coming straight from tilling contaminated soil, are probably responsible for much of the infection—The calls of nature are obeyed by both sexes in close proximity to the huts in or outside which they eat, and doubtless embryos are often transferred from the feet to the mouth of those who sit cross-legged at their meals

European text-books still refer to water as the medium through which the parasite reaches man. But Surgeon Major Giles has examined fifty-six specimens of water from wells and ponds of villages in Assam affected by anchylostomiasis, and sixteen of these he found by chemical and microscopical examination to be "bad" or "very bad" Yet on only one occasion did he find a rhabdite of doubtful origin in water. However, it is quite possible that Egyptians may occasionally infect themselves by their habit of rinsing their mouths with stirred-up muddy water.

Fortunately, continued exposure to the sun's heat during dry weather kills the embryos, or it would be possible for the parasite to do much more harm than is now done in Egypt. But the fellaheen, who seem unconsciously to devote their lives to encouraging their entozoa, are often eaters of earth, like the anæmic negroes of the West Indies and Guiana, 26 per cent of the cases confessed to eating it, though most of them allowed that it was a bad habit and in-

<sup>\*</sup>A longer paper by the author on this subject was read before the International Medical Congress at Rome

duced anæmia They call the Nile mud "teen Ibliz" ( $\pi \eta \lambda \delta s$ , mud), and apparently have some old superstition that the soil, so feitile to vegetation, cannot but be beneficial to the human economy

Definition—I venture to propose the following as the definition of anchylostomiasis. An insidious wasting disease characterised by progressive anæmia without apparent cause, and by digestive and nervous deterioration, occurring chiefly in earth and brick labourers of warm climates, caused by the presence in the duodenum and jejunum of a bloodsucking rhabditic nematode worm, occasionally proving fatal in prolonged cases, but capable of cure upon removal of all the parasites, and capable of prevention by scrupulous clearliness.

Diagnosis—The anæmia is so marked that there is seldom any difficulty in recognizing it, and therefore this symptom is well known to all doctors who have patients among the fellaheen—But the disease itself is rarely recognized in Egypt, for a generation has arisen which knows not Griesinger, and under ordinary circumstances the worms are not to be found in the evacuations—Even after thymol and a perge have been given to a patient fasting, care and patience are required to find the worms—This can easily be done after submitting the fæces to several washings with clean water, and examining the final deposit—The worms which are naturally white are generally discoloured by the fæces, and must be carefully distinguished from any accompanying oxyundes—It will be found that thymol has removed most of the fæcal odour.

The microscope furnishes the readiest means of discovering the parasite, for in most cases eggs can be found in a tiny portion of the suspected fæces, which, to make the examination more agreeable, may be washed in a test-tube with a weak solution of carbolic acid

Symptoms — These may be grouped into three classes—those affecting the digestive, circulatory, and nervous systems. They usually affect the patient in the above order, but most cases are so far advanced before they come under treatment that all three systems are affected. The worms are voided so seldom with the fæces that patients never know that they are suffering from entozoa unless they happen also to be the hosts of ascaris, oxyuris, or tænia

Gnawing, throbbing pain in the epigastiium is the first symptom complained of, chiefly because it is constant whereas severe colic and boilogymi of intestines are only present from time to time. The appetite is invariably affected, sometimes ravenous at the beginning, but later always capitorius and diminished

Vomiting and nausea were rarely complained of. Constipation,

when not under thymol and purgative treatment, was a very constant symptom in hospital, 60 per cent had suffered for a long time from obstinate constipation, 28 per cent had had diairhea before admission. and 12 per cent had no recollection of being troubled with either None of the figures depending upon the memory of the patients must be taken as absolute truth, as the intelligence of many is of a very low Diaithea and even dysentery are not uncommon in very advanced cases, especially those complicated by Bilhaizia ulceration in the rectum, and unless the patient is robust enough to support thymol such cases are apt to end fatally However, I have had the satisfaction of curing some cases of anchylostomiasis which had been unsuccessfully treated elsewhere for several months as chronic dysentery Flatulence of the lower abdomen has been mentioned by Dr. Lutz as a common symptom I found it present to a slight extent in one third of the cases The urine is not unlike that of ordinary anceing. neutral or alkaline in equal proportion, and rarely acid, pale coloured, with specific gravity ranging from 1010 to 1015. A trace of albumen was present in all the most advanced cases, without casts under the micioscope

Pain in the head, generally referred to the temples, while in the knees there were invariably present great weakness and some pain occasionally there was in addition pain in the shoulders Giddiness is another very general symptom, and it is this as much as anything else which compels men to give up work Palfitation of the heart, in the epigastrium, and in the temporal arteries is sure to be present in bad cases, while the anæmic muimuis of heart and neck are solely dependent upon the degree of anæmia, and can be banished by a prolonged course of non Hypertrophy of heart was noted and verified after death in some of the advanced cases Dyspnæa and noises in the ears were present, as might be expected with marked anomia Œdema of legs, like albuminuia, is only to be seen in the worst cases. and some of these had general cedema when admitted in a dying con-The tongue was extremely pale, the mucous membranes were excessively white, the face had an unhealthy yellow pallor, very different from the ruldy brown of the peasant in health, and the bloodless nails testified to the blood containing not more than half the normal number of red corpuscles

The skin is always cold, and the temperature before thymol generally subnormal in uncomplicated cases. After excluding any fever produced by concurrent diseases, and any defervescence caused by thymol, I find that one third of my patients had a normal temperature during their stay in hospital, but that two thirds had a

distinctly subnormal range, varying from an average of 36 3° C, a m, to 36 9° C, p m

Many of these patients when convalescent had an increase of half a degree, night and morning

The eyes of patients show a pearly white conjunctiva, singularly in contrast with the yellow colour of the face. Dr. Scott kindly examined several men for me with the ophthalmoscope, and found in half of them a normal fundus, and in the other half a fundus very palled. The refraction test showed astignatism in many cases. I have never found any retinal hæmorrhages, epistaxis, nor general tendency to hæmorrhages, but in two cases there was inclæna while under treatment.

The faces of the patient is characteristic, though it is difficult to describe his discontented, harassed expression, which sometimes changes to a ready smile after a month's stay in hospital. The worst cases are those which are always asleep, and cannot be interested in anything when they are awake. On the whole, sleepiness is decidedly a symptom. Dense stupidity, associated sometimes with reiterated demands for a favour already granted, shows that the bloodless brain is affected in all advanced cases, and at least three times I have found a condition of weak-mindedness which would have warranted the patients being sent to the lunatic asylum. Debility and wasting are, of course, important symptoms, but it must be remembered that when a man is so weakened by the disease that he cannot work, he ceases to earn money, and his food supply becomes limited

Absence of patellar reflex is not surprising in cases of general debility and muscular weakness. In 35 per cent of cases examined the reflex seemed unaltered, in 48 per cent it was completely absent, in 5 per cent it was decidedly diminished, and in 12 per cent, all of which were early cases, it seemed to me to be a little exaggerated Impotence seems to be a decided symptom of anchylostomiasis

Examination of the Blood—I have notes of one hundred and seventy three cases in which the blood-corpuscles were counted on admission to hospital. In only three patients were the red corpuscles found to exceed 4,000,000, and even then the excess was extremely slight 23 per cent numbered between 3,000,000 and 4,000,000 to the cubic millimètie, 46 8 per cent varied from 2,000,000 to 3,000,000, and 28 3 per cent had less than 2,000,000 red blood corpuscles. The minimum recorded was 930,000 in a patient who afterwards did well. The average gain of red corpuscles during stay in hospital of these cases was 1,290,000, and could have been much more if it had been possible to keep the patients for a longer time

Comblications and Concurrent Diseases—It is very rare to perform an autopsy upon an Egyptian of the peasant class without finding various entozoa, and the anchylostoma patients are no exception to this rule

The Distona hamatolium of Bilhair is so common amongst men and boys that its piesence is not always noted, and my cases probably included more than the eighty cases of which I have notes. At one autopsy there were forty worms in the blood of the veins of the liver. In experimenting on cases of Bilharzia with thymol (so far unsuccessfully) I have often found anchylostoma, though the patients had no symptoms or appearance of anæmia

Oxyuris vermicularis was present in half the patients, and was usually completely expelled by the first dose of thymol. Though this worm is so common in Egypt, I hardly know whether it produces any had effects

Ascaris lumbricoides was noted in fifteen cases after the exhibition of thymol, and perhaps was present more often. Thymol expels it quite as well as santonine

Tana mediocanellata was present four times, and is not well acted on by thymol

Tricocephalus dispar was only found in two of my cases (Giles found it in nearly all his Assamese patients)

Favus was present in many of the poorer Egyptians Pellingra existed in twenty-eight cases, and being in an early form was cured by the tonic treatment Intermittent fever occurred in nine of the cases. I have found anchylostoma in cases of dysentery and of fistula in ano, and have found it in patients who came to the hospital complaining of hæmorihoids and prolapse of rectum. Albuminion was present in thirty advanced cases, besides three others in which there was kidney disease. Nearly all the fatal cases passed, while in hospital, urine of uniform sp. gr., 1010. Three cases came under my care after they had had lithotrity successfully performed

Chronic bronchitis may be regarded as one of the complications, having been present fifteen times. Ten patients with tubercle of lungs also harboured anchylostoma. I have also found them in isolated cases of cirrhosis of the liver, diabetes, rheumatism, heart disease, leukæmia, disseminated sclerosis, hasheesh delusions, etc.

Most of the fatal cases had loud anæmic muimuis, markedly subnormal temperature, slight general codema, albuminuma, and great mental weakness

The actual cause of death was exhaustion, from utter absence of rallying power. It is difficult to believe that the pathological effects

are induced only by hæmorrhage from the daily suction of scores or even hundreds of worms. In addition to the loss of blood we have general thickening and degeneration of the duodenum and jejunum, and consequent interference with normal digestion, then non-assimilation, and eventually a process of slow starvation. It is also worthy of consideration that there may be in prolonged cases some self-poisoning from the great number of bites in the walls of intestines containing ill-digested and perhaps decomposing food

Post-mortem Appearances —I have notes of twenty-six autopsies, ten of the patients having been brought to the hospital moribund

The small intestines showed of course the most important changes As a rule, there were many hæmorrhages and bites in jejunum and ileum, but in one of the cases where the bites were carefully counted there were only six in the jejunum and ileum, and no worms were found. In another case, however, there were five hundred and seventy-five bites in the small intestine, besides two hundred and fifty anchylostoma. In yet another there were one hundred bites, the faithest of which was 4½ mètres from the pylorus. In only two cases was there much liquid blood in the intestine.

I have not observed the constant changes in the mucous membrane of the stomach described by Giles

The position of the worms deserves notice—It was quite the exception to find any parasites in the duodenum—But, as a rule, the attached worms are all within 2 mètres of the pylorus, and have their heads, and sometimes half their bodies buried in the mucous membrane

TREATMENT—The rational treatment is, of course, twofold—to expel the worms and to treat the anæmia Before I ever heard of **Thymol** as the specific vermifuge for this disease, I went through a weary apprenticeship of failing to get rid of the parasite with other drugs

When I first learnt the powers of thymol on the anchylostomum, I experimented on a dozen patients with santonine, male fern, etc., before giving thymol. In every case the bulk of the worms were not removed until after the administration of thymol. Two patients voided three hundred and twenty-four and one hundred and twenty anchylostoma respectively after thymol, though not a single worm had been expelled by means of other drugs. But for the last four years I have looked upon it as waste of time to administer any other anthelimintic than thymol. The dose of thymol is of considerable importance. I quite agree with Sonsino, Giles, and other writers that small doses are valueless. I used at first to give, as recommended, 6 grammes in doses of 2 grammes at intervals every two hours, but to prevent unnecessary collapse. I have for the last year only given

4 grammes as an adult dose, viz, 2 grammes at 8 am, and the remainder at 10 am. I am of opinion that 4 grammes are as efficacious as 6, and are certainly less dangerous. Warned by the death of at least one of my patients immediately after digesting the thymol, I have always administered to feeble men 25 grammes of brandy with each 2 grammes of thymol with the happiest results. For a day before and a day after the thymol the patient is kept on a diet of milk and soup. I began by giving a purge before and after the thymol, but for a long time now I have omitted the preliminary purge as being unnecessary, and as contributing not a little to the patient's exhaustion. At 12 noon two hours after the second half of the thymol, Sulphate of Magnesia or Castor Oil (the latter to be preferred) is given

Large doses of thymol have poisonous effects upon the system, not unlike those produced by carbolic acid. The temperature is lowered one or even two degrees Centigrade, and both pulse and respiration are slowed. The patient remains for a few hours collapsed, giddy, and faint, and has to be kept lying down, but at sunset he is quite well again and asking for food.

The contia-indications for thymol are excessive debility, very low temperature, age above sixty, and advanced disease of heart or any other organ. Boys take it very well in half-quantities

As a rule I have not considered it fair to submit patients to the depressing influence of thymol more often than once a week, but in the case of fairly robust men, who were anxious to make no long stay in hospital, I have often given it every four days. To prevent any possible spread of the disease, the evacuations of patients ought to be treated with some disinfectant, such as Hydrarg. Perchlor., I in 500

The general treatment of the anæmia is, of course, of great importance from the very first. The hospital mixed diet, with its meat and better bread, is superior to the food obtained by patients before admission, and contributed greatly to their improvement in health. In spite of the disturbances of the digestive tract, men, unless dying, were always ready to eat ordinary and extra ineals.

Iron I have tried in various forms, and though some few patients complained of headache at first, it was greedily absorbed by the economy. My only desire was to find that preparation of non which could be taken in large doses, and would quickly banish the anæmia. The peroxide can be borne in large quantities, but the microscope proved that the blood was most benefited by the daily supply of  $1\frac{1}{2}$  grammes of the **Sulphate of Iron** in water in three equal doses. The patients during their stay in hospital were always taking non, except on the days devoted to thymol. During the winter some of the feeblest

patients were given every day a little brandy with advantage The treatment of other symptoms was too simple to need mention

Transfusion of blood, or even of a saline solution, I have often thought might be beneficial to cases admitted to hospital in a dying state, but as yet I have not made the experiment

## ANEURISM.

Dr Ransohoff appends the following conclusions to a paper on aneurism (1,) Extirpation is the ideal method. It should be resorted to unless there are weighty reasons against it, (2,) In aneurisms of the fore-arm and of the leg no other method should be adopted (3,) Aneurisms which have suddenly grown large from subcutaneous rupture of the sac, and those in which rupture is impending, should be subjected to extirpation. (4.) In recent traumatic aneurisms the injuicd vessel should be divided between two ligatures When a sac has formed it should be excised, (5,) When other methods have failed, extirpation should be tried before resort is had to amputation, (6,) In arterio-venous aneurisms extripations should be practised, if any operation is indicated, (7,) Proximal ligation is to be reserved for cases of idiopathic or spontaneous aneurisms in which the age of the patient of an enfeebled condition from other causes would make a prolonged operation hazardous, and for cases in which the position of the tumour precludes the possibility of extirpation

REFERENCE — "Annals of Surgery," Jan, 1894, and "Braithwaite's Retrospect'

## ANGINA PECTORIS.

Irue and False Angina Pectoris —Dr Huchard gives the following table of differential diagnosis between true angina and hysterical pseudo-angina

TRUE ANGINA

Most common between forty and fifty years

Most common in men Attacks brought on by exertion

Attacks rarely periodical or nocturnal

Not associated with other symptoms

Vaso-motor form rare Agonizing pain, and sensation of compression by a vice

Pain generally of short duration, attitude, silence, immobility Lesion Sclerosis of coronary aftery

Prognosis Grave, often fatal

HYSTERICAL PSEUDO-ANGINA At every age, even six years

Most common in women Attacks spontaneous
Often periodical and nocturnal

Associated with nervous symptoms

Vaso-motor form common Pain less severe Sensation of distention

Pain lasts one or two hours, agitation and activity
Neuralgia of nerves.

remargia or herves

Never fatal

Huchard also discusses the prognosis of angina Sudden death may occur during the course, or at the end of a painful paroxysm, or, by sudden syncope unattended by prin Anginal patients are very liable to syncope, the patient falls as if struck by lightning. In other cases death is not so sudden, but rapid, and may be attended with symptoms of asphyxia instead of syncope. In other cases the disease may be terminated by intercurrent affections. The predisposing causes of sudden arrest of the heart in angina are probably lesions of the cardiac ganglia and local ischæmia of the myocardium, the exciting causes are spasinodic contraction or thrombosis of the coronary arteries.

TREATMENT - The author gives Iodide of Potash for three or four years in doses of 45 to 60 grains daily, taking care to suspend it for eight or ten days each month. In theumatic cases Sodium Salicylate, Rest, Even Temperature, and Dietetic Care are always important. The inhalation of Nitrite of Amyl (this drug relaxes the peripheral arterioles, lowers the blood pressure, and relieves the heart). Nitroglycerine and hypodermic injection of Morphia are also useful for the same purpose, and act much in the same way. Hot Applications to the chest, Faradization of the cardiac region, with internal administration of diffusible Stimulants, Belladonna, and small doses of Opium have been recommended.

REFERENCE - "Med Record,' Oct 14, 1893

Synopsis - (Vol 1894, p 77) Milk Diet and Pre-digested Foods are often of service Dyspeptic conditions require either Alkaline Bitter Stomachics,  $\ell g$ , Sodium Bicarbonate with Nux Vomica and Calumba one hour before the two principal meals Or dilute Hydrochloric Acid in compound infusion of orange peel after meals with or without a few grains of Pepsin For flatulent digestion, a grain of Thymol in pill or a diop of Creasote directly after meals As aperients, a dinner pill containing Aloes 1 or 2 grains, Ipecacuanha 2 grain, Nux Vom, 1 grain, Soap. I grain, and if insufficient to be followed occasionally by a teaspoonful of Carlsbad or Homburg Salts in 1/2 a tumblerful of hot water next morning, or if the liver is sluggish a few grains of Blue Pill or 1 or 1 grain of Podophyllin at bed time, with 2 or 3 grains of Compound Rhubarb Pill. In cases of anæmia and of cardiac debility, mild preparations of Iron with small doses of Digitalis are useful, Arsenic is at times more useful than iron, and is much used in the intervals between the paroxysms Balfour advises Fowler's Solution, 3 to 5 m, with Iron and Strychin ne twice daily after food For highly neurotic cases Iron or Arsenic and Potassium or Sodium Bromide in 5 to 15 grain doses, or Zinc Valerianate, grain doses, in a coated pill three times daily after food, and sometimes the combination of  $\frac{1}{100}$  grain of Phosphorus. Occasional recourse to a mild iron tonic with  $5\,\text{M}$  doses of Digitalis, or a pilule of Nativelle's digitaline  $\left(\frac{1}{100}\,\text{gr}\right)$  appears to have warded off the attacks in some cases Cardio-vascular degeneration and gout call for Potassium Iodide in 5 to 15 grain doses t d, In malarial cases, if arsenic fails, Quinine must be used, but as arterio sclerosis will usually be present, Potassium Iodide is often indicated. Cocaine has recently been lauded as preventive of the attacks in doses of  $\frac{1}{2}$  of a grain t d. Huchard considers the following as dangerous or ineffective, viz electricity, cocaine, bleeding, bromides, hypnotics, oxygen inhalations, belladonna, aconite, and he does not advise the use of sodium nitrite

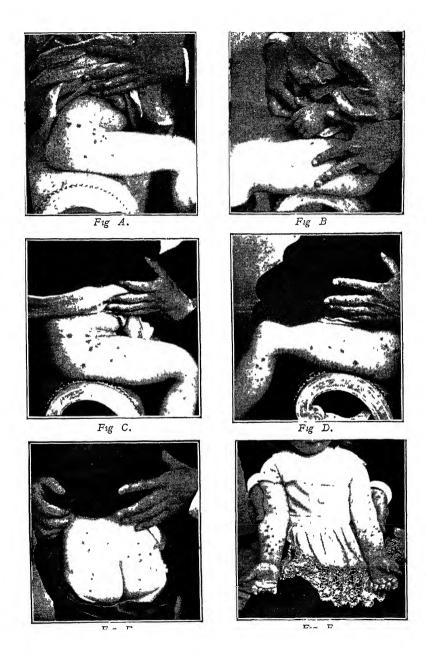
# ANGIO-NEUROSIS. W Ramsay Smith, B Sc, MB, Edin

Within very recent times several distinct diseases have been ranged in the category of angio-neuroses. Graves's disease and Raynaud's disease may be considered the terminals of a series that include hay-asthma, angio-neurotic cedema, Nothinagel's angina pectoris, urticaria, certain forms of menorrhagia, and many other such apparently diverse conditions. The time has not yet come to make an inventory of the various angio-neuroses, or to attempt to exhibit their interrelations. At this stage of study of the subject it will be most profitable to leave the discussion of definite diseases to the articles dealing specially with them, and in this article to collate cases of some angio-neuroses less likely to be noticed in particular discussions, but all the more deserving to be studied on account of their more varied relations, and of the problems that they raise, and the principles they bring into prominence

The very distinct and definite form of skin disease allied to erythema and urticaria, which I described at the annual meeting of the British Medical Association, at Newcastle in 1893,2 forms a convenient starting point from which to consider the relations of several more or less closely allied conditions. In this disease, which I may for the time being call eigthema-uiticaiia, the appearance of the distinctive rash is pieceded by a certain amount of constitutional disturbance, accompanied by a feeling of heat and itching locally The tash may appear on any part of the body, but it seems to select certain parts by preference, eg, a zone on the upper part of the abdomen, and the limbs, and it may be irregular in its distribution, or bilaterally symmetrical, or it may follow the course of certain nerves The tash values in character, but every valuety may be seen on the same subject at one time The appearance at first is generally that of round white wheals varying in size, usually from a quarter to half an inch in diameter, then in a few hours the wheals become erythematous and afterwards may go on to papules, blebs, and even pustules Some of the wheals may disappear at an early stage, but most persist and lead to diverse structural changes in the skin. In a few days a second attack may occur showing all the characters of the first, and such recurrence may go on for two or three weeks complaint may recur at intervals of a few months, or it may not occur again A study of about eighty cases has shown that while no age or sex is exempt the majority of sufferers are female children

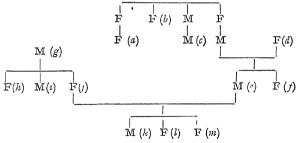
The accompanying illustrations show some very characteristic appearances in a subject who has suffered from the disease for upwards of four years Fig A, Plate I, which was taken on the first day of an attack, shows some of the wheals with a central mark like the bite of an insect, a common but not a constant feature Fig. B, taken at the same time, shows wheals a few minutes old and D. taken twenty-four hours later, show the spots on the right leg about the same in number, but less "angiy," and those on the left increasing in number. Fig E, taken three days after the last, shows a crop of spots about six hours old, in the intensely itching stage, the whole skin of the part being covered with flecting enythematous patches of a pink colour on which the single spots stand out as distinct wheals In this particular attack, which was a very severe one, certain spots on the forearms presented ultimately the typical appearance of eivthema nodosum in its final stage Fig F, which is a photograph of the boy's sister taken next day, shows a symmetrical disposition of the spots, those on the left aim being in piocess of eluption and coming out a day later than those on the light boy and gul and the thud child of the family, an infant of a few months, invariably have an attack at the same time

A maternal uncle of these patients has described an attack of a severe form of this disease in his own body, associated with high temperature, a feature very uncommon in the cases I have seen. The symptoms came on at once and in sequence for thice days-neive storm, etc., soles, palms, forehead, face, han, back, front, abdomen, chest, limbs, eighthematous, papulai, shotty, patchy, confluent, wheals, puncta, subcutancous nodules, diopsical congestion of face, congested eyelids, temperature 102 5° F or 103° F, maximum, pulse 100-120 The skin was persistently crythematous for four weeks or more all over A single round wheal appeared at two separate places three There was no recurrence The patient says in an interweeks after esting note "The conditions described had followed three weeks' exposure to the June heat (varying from 70° F to 90° F) of Paris, where apparent "mosquito" bites had, night after night, produced, on face and other parts accidentally exposed, infiltration swellings of sizes varying from a shilling to a crown-piece The readiness to develop this local infiltration was very marked. The skin was for weeks in a state of heat-irritation, greater or less. The urticaria attack itself was directly sequent on (a,) over-heating after breakfast, and (b,) ingestion of tinned tongue. Experience of bug-bites twelve



years previously and, again, of bug and "mosquito" bites in Paris four years previously, found the same readiness to inflammatory infiltration and reaction. On the other hand, repeated and prolonged exposure to almost all the major infections—including enteric fever, typhus, small-pov, whooping cough, diphtheria—has, since scarlet fever at three, and measles at six years of age, resulted in no attack of any sort, unless occasional follicular tonsillitis be regarded as vicarious of all these. The only other skin affection, within memory, was a symmetrical wheal urticaria, six years previously, the rash appearing on the external surface of the hips and thighs for about an hour every evening and about the same hour every evening for three weeks. The condition was associated with the hard-work end of a college session —W L. M."

This individual case shows how very diverse may be the local manifestations of angio-neurosis in one person and in one attack—the body being a veritable *locus classicus* of eruptions for the time being. The family history of the three children shows how diverse may be the manifestations of angio-neurotic tendencies in different individuals. The following is the history so far as it appears worthy of record —



M is mile, F is female, (a) is the subject of general angio-neurotic cedema as reported in the "Practitioner's; (b) died of epithelioma of the urethia, (c) is the subject of asthma and most extensive and chronic eczema of the whole body, (d) was subject to migraine, asthma, and other visceral neuroses, and thinning and curving of the nails, (e) suffered from migraine, (f) suffers from periodical thinning and curving of the finger nails, (g) was an extreme example of a slow pulse (20–30 a minute), a family feature, (h) suffered from repeated attacks of erythema of the fingers, (i) is the case of severe erythema-uriticaria reported above, (f) suffered from subcutaneous abscesses and localised lupus, (k) is the case photographed above, (l) is the sister, photographed, and the subject of abnormality of the

finger nails recorded in the "Journal of Anatomy and Physiology", (m.) is subject like the two last to crythema-urticaria

Thus there is illustrated in this family record on the one side typical angio-neurotic ædema, cancer, asthma associated with eczema, asthma associated with migraine and abnormalities of nutrition of the finger nails, on the other side characteristically slow pulse, erythema of the fingers, severe erythema-urticaria with diverse cutaneous and subcutaneous lesions, subcutaneous abscesses and localised lupus, and from a union of the two strains there has sprung a family of three all subject to an angio neurosis showing itself as a definite erythema-urticaria

At this point it will be well to record other manifestations of angioneurosis in cases where there is evidence of a neurotic basis

In one family I found a child suffering from erythema-urticaria of the papular, almost pustular, form, another child subject to "ulceration of the bowels", the mother a sufferer from migraine and a whole train of internal "-algias," and formerly from subcutaneous "swellings like hazel-nuts," probably circumscribed cedema, and the father also subject to migraine

A patient of mine, who suffers from Graves's disease, is subject to eighthema-urticaria. Her mother shows visceral neuroses, and her father died of phthisis

In another family I found the mother, subject to asthma, suffering from erythema nodosum, a daughter a sufferer from typical crythema-urticana, and a brother suffering from localised cellulitis

In still another family I have found one sister suffering from localised ædema and other angio-neurotic symptoms, and another suffering from scirrhus of the breast

As to cases of individual patients, I have seen another case of eighteen nodosum in a woman the subject of chronic bronchitis and asthma. Another patient, when convalescent from typhoid fever, suffered from ædema, with localised eighteen of the left leg, followed by angio-neurotic ædema of both legs, and desquamation. She formerly for a period of four years suffered from a series of boils or abscesses, and was also subject to a "chest affection." In another patient I found erythema nodosum associated with chronic psoniasis. Two cases of cancer under my care are associated with painful ædema, that cannot be explained entirely by pressure on vessels or nerves.

Trousseau<sup>5</sup> notes the hereditary tendency to urticaria, the mother of two sufferers being herself a victim of it and the subject of anomalous nervous symptoms, and he records a case of urticaria

associated with nervous symptoms of a most formidable character Certain circumstances led him to believe as an explanation of the association of urticaria with bronchial conditions that a "bronchial eruption" might occur in urticaria "precisely as in measles"

To come to recent times, I would call attention to Dr Allan Jamieson's record of the condition that he inclines to call urticarial prurigo, occurring in the family of a medical man, himself subject to urticaria. In several of its strange features that condition resembles the disease I have described as crythema-urticaria. Dr Jamieson discusses the relation of urticaria to circumscribed ædema, migraine, and other all ed disorders, basing his discussion on illustrative cases, in a way that brings the neurotic basis in these various conditions into prominence

As regards the erythemata, so many cases of the association of one form with another have been recorded that one has little hesitation in classing them all as effects of a common cause—a disturbance of the vaso-motor system, and so many "marginal cases" have been observed that the dividing line drawn by Trousseau between erythenia nodosum and other erythemata may well be erased Jamieson has found eigthema nodosum in an epileptic subject, he has also noted its association with erythema multiforme, and the association of eighthema multiforme with chilblain eighthema Boeck has pointed out the association of angina with erythema multiforme and peliosis theumatica and so on Dr Gifford Nash reported four cases of erythema nodosum occurring in one family within a period of ten months, and stated that a maternal aunt of the family living in the same place thuteen years before had suffered from that disease to family predisposition in Dr Nash's cases and in two cases of Dr Pye-Smith's, there is the possibility, so far as the records go, that the predisposition was to an instability of the vaso-motor system, and that locality or climatic conditions had something to do with the particular manifestation

Similar hereditary tendencies in the case of certain forms of herpes have been noted by Dr Dubler and Dr G  $\Lambda$  Gibson.

Panas records a case of dry gangiene of the foot in a patient of nervous temperament with a neurotic family history. The anterior tibial and other nerves showed pathological changes. Ehil reports a case of sloughing gangiene of parts of the face and left aim in a neurotic girl, whose sister also later on showed localised gangrene of the left breast and cheeks. Singer records the occurrence of neurotic gangiene in a girl who exhibited dissociation of sensation and signs of hysteria. Féré reports the occurrence of cutaneous gangrene in a

patient under treatment for round ulcer of the stomach, and suggests that both lesions may be due to the same nervous cause

So much, then, regarding the characters and relations of the manifestations in which an angio-neurotic basis may be discovered. The point now, and it is the standpoint from which to view the whole subject, is this. Given an unstable vaso-motor system manifesting its effects so diversely in the same and in different organs, the question arises, "IVhat are the causes that may influence such a system? in other words, What are the exciting causes of such angio-neurotic manifestations?"

Passing by local peupheial irritation of any and every sort acting reflexly, as requiring merely to be mentioned in order to be appreciated, and noting *heat* as a cause that has yet to be studied, there remain for consideration as exciting causes, emotion, toxis, and climatic conditions

Emotion as a Factor in Angio-neurous—Emotion as a cause of pathological conditions has received wide attention. A very complete account of the subject will be found in Féré's "Pathologie des émotions," chap vi Among the skin diseases there enumerated that have been produced by painful emotions, are local syncope, erythema, urticaria, purpura, eczema, psoriasis, herpes, pemphigus, prurigo, vaso-motor cedema—all of which may properly be classed as angio-neuroses. But a mere enumeration of conditions following emotion is of little help in considering the present subject. What one desiderates is a record, in every case, of coincident or associated conditions or well marked tendencies in the individual, and a careful statement of the family history. Only with these before us can we appreciate the neurotic element at its true value as one of the conditions of the manifestations. Such records are scarce?

To come to cases where a neurotic basis has been noted. The part played by emotion in the etiology of such diseases as Raymaud's disease, diabetes, and Graves's disease is well recognized.

"Coulon records three cases in which jaundice supervened in three children of nervous diathesis shortly after emotional excitement—in one case, a girl aged nine after a fright, in two others, girls aged ten and a half and thirteen and a half years respectively, after a fit of anger produced by punishment at school "is

<sup>\*</sup>I must mention for honourable exception a post-graduate lecture by Dr. G. A. Gibson, on "Vaso-motor Neuroses" ("Edin Med Jouin" for December, 1838), which I had not read when this article was written. In it he notes and emphasises the neurotic basis and its diverse manifestations

Dr Lubbock<sup>14</sup> records a case of a highly sensitive young lady who thirty-six hours after an instrumental labour developed jaundice, due possibly to emotional disturbance, but possibly also, as the record shows, to foul lochia

I have seen repeated attacks of profound jaundice lasting only for a few hours in a woman suffering from visceral neuralgia and the subject of migraine

In view of our ignorance of the mode of production of jaundice in such cases, one heartates to quote these cases unreservedly as instances of angro-neurosis due to emotion

But in two cases I have recorded's of general angio-neurotic ædema, prolonged and profound mental emotion in neurotic subjects was undoubtedly a factor in the causation.

Ehiman<sup>16</sup> describes a particular form of skin disease, which he terms deimographismus, and ascribes it to mental excitement (without the presence of a toxic substance) acting on the nervous system. He allows that this condition may co-exist with urticaria, but he holds that the causation is different—uricaria, in his opinion, depending upon the presence of some toxic substance. That a toxic agent is necessary in the production of urticaria is a statement to which many will demur

Toxis as a factor in Angio-neurosis — This again has been studied in connection with diseases presenting a neurotic basis. Freichs and Saundby have described septic diabetes. The connection between toxis and Graves's disease and allied conditions is dealt with most recently in Dr. Edward Blake's "Myxædema, Cretinism, and the Goitres". Dr. Blake in his former work "Sewage Poisoning" enumerates diseases in which one may look for sewage infection as a cause, and many of these may, without doubt, be regarded as angio-neurotic. Further, in "Septic Intoxication," section in, he gives records of cases of the sort most needed in investigating this subject.

I have found enythema-unticana coincident with septic poisoning of the hand, erythema nodosum, in more than one case, evidently due to poison from without, enythema nodosum and chronic psoriasis coincident with sewer-gas poisoning, and angio-neurotic ædema and erythema in the course of typhoid fever

The association of unticaria with the ingestion of poisonous substances is well known. Frank<sup>20</sup> saw unticaria complicated in such a way with quotidian and tentian ague as to appear epidemic. Copland<sup>21</sup> saw it, though not so often as enythema and noseola, in acute rheumatism, also in association with cutaneous eruptions, specially enythema,

ioseola, lichen, occasionally impetigo, and with chionic visceral disease and cancer, and after miscarriage in nervous women

In the course of a report on "A Case of Septic Osteo-myelitis with erythema multiforme' Dr Colcott Fox remarks very pertinently that we must regard eruptions of the erythema multiforme kind as possible in any toxemia, whether the agent be morganic or organic, and after enumerating some of the diseases in which such eruptions occur, he gathers together and compares statistics of eruptions in cases of influenza, infective osteo-myelitis, general pyæmia and infective endocarditis

Dr Suckling<sup>23</sup> has recorded two cases of scarlet rash after enemata, and refers to Dr Burford as having noted such cases. Dr Burford<sup>24</sup> pointed out and illustrated the cause of such occurrences, showing that fæces if dry may remain innocuous in the intestine for an indefinite period, but when they are liquefied a diffusion of toric matter occurs from the bowel into the general system, often giving rise to a sharp attack of unticaria

Rashes after child-birth are far from uncommon, and unfortunately give lise too often to wrong diagnosis of scarlet fever or erysipelas Gaertig<sup>25</sup> records a case of a woman who in three successive confinements developed an erythema after labour, each labour being complicated with flooding and adherent placenta

Wasp-stings sometimes give rise to severe constitutional symptoms with local crythema. Dr Balfour Marshall<sup>26</sup> records a case of wasp-sting giving rise to itchiness of the body, great swelling of the face, and a scarlatinal-like rash on the chest and abdomen. Dr Saunders<sup>27</sup> records a case with similar symptoms

The records of cases of skin lashes following the introduction of poisons into the system or the absolption of poisonous substances generated in the intestines, are very numerous, but the majority of them lack the elements that prove of value in the study of the etiology of those lashes, viz, a statement of the associated conditions and the constitutional and hereditary tendencies

Chimatic Conditions as a factor in Angro-neurosis—This subject has received but little attention—Trousseau<sup>28</sup> noted that hæmorrhages in typhoid fever occurred coincidently with passive hæmorrhagica, black small-pox, and numerous examples of petechial scarlatiniform cruptions of the sort that occurs at the beginning of varioloid affections, and he felt constrained to ask whether the influence of a prevailing "medical constitution" might not sometimes explain the occurrence of these hæmorrhages—He also, following Dr Leudet, of

Rouen, noted that dropsies consecutive to enteric fever occur more frequently in some localities than in others—they are rare in Paris but common in Rouen—and suggested that "the prevailing medical constitution" had something to do with their production. Copland<sup>29</sup> mentions "atmospheric vicissitudes" as causes of local affections, particularly inflammations, occurring in typhoid fever, and in another place<sup>30</sup> states that though hæmorihages (in general) are scarcely ever epidemic, yet at Breslau they prevailed at one time to a remarkable extent—children having epistaxis, adults hæmoptysis, and the aged hæmorihoids

This summer (1894) I saw two cases of hæmorrhage in typhoid fever in the early stages, within a period of two months, during which I also attended three cases of erythema nodosum, eight or ten cases of erythema-urticaria, several cases of septic poisoning, several cases of erythema, one or two cases of angio-neurotic cedema, and numerous cases of neuroses of various sorts. After making all allowance for "coincidences," etc., I am forced to conclude that climatic conditions must be admitted as a most important factor in the etiology of angio-neurotic manifestations.

An extensive study of the disease I have called eighthema-urticaria has led to the conclusion that in the appaient epidemic incidence of that disease, climatic states form the only common condition to which the patients are exposed

TREATMENT -- It would be presumptuous in anyone to attempt to discuss the treatment of all these various conditions in the bounds of a short article But after noting as a self-evident proposition that all sources of reflex must be attended to, one may indicate briefly some drugs that have found favour by their general usefulness in many of these conditions. Arsenic has long held a foremost place in the treatment of many conditions now classed as angio-neurotic, especially in such manifestations as asthma. Its effects may be exercised in two directions,  $(a_i)$  as an antiseptic in the alimentary canal, and (b) as a food for the nervous system Strychnine likewise has a double action,  $(a_i)$  on the intestines to cure constipation, and  $(b_i)$ on the nerve centies It has been employed in asthma and associated conditions In neurotic subjects with weak heart I have found it relieve the hard, racking spasmodic cough of bronchitis when other remedies have failed Quinine is more generally useful than one would expect, especially in adults One sufferer from severe eighthemaurticaria informed me that this drug subdued the symptoms like a a chaim It may be well to recall the fact that Watson3t was so well satisfied with this drug in the treatment of crythema nodosum that he "felt no temptation to try any other" Ergot has been employed in many angio-neurotic conditions. In all cases where there is evidence of toxis either from without or from within as a cause, Calomel is most to be depended upon. In constipation in fevers, e.g., typhoid, I have been constrained to prefer calomel to enemata. But in these conditions if one is afiaid to use either, and hesitates to let the bowels take their own time to move, then Salol dissolved in Christy's oil (I drachm of oil will dissolve to grains of salol), with other substances to choice and taste, will cause an evacuation without interfering with the regularity of the temperature chart

REFERENCES—" American Journal of the Medical Sciences," Feb., 1894, p 130, 2" Edin Med Journ," Maich, 1894, 3" Practitioner," April, 1894, 4" Journ of Anat and Phys," vol xxv1, p 406, 5" Lectures on Clin Med" (New Syd Soc), vol 11, p 285, 6" Diseases of the Skin," 2nd ed, p 126, 7" Lancet," July 7, 1894, p 27, 6" Bit Med Journ," Epitome, July 21, 1894, p 9, blid, nov 18, p 81, 1893, "Priogrès Médical," vol 1, p 391, 1894, 12" Pathologie des Emotions," Paris, 1892, "Brit Med Journ," Epitome, May 19, 1894, p 77, 14 Ibid, April 21, 1894, p 896, 15" Lancet," July 14, 1894, p 76, 1bid, June 30, 1894, p 1634, "" Myxædema, Cretinism, and the Goitres" (Wright & Co, Bristol), 1894, 18" Sewage Poisoning," p 14, 19" Septic Intoxication," p. 44, et seq., "" Copland's Medical Dictionary," vol 11, partil, p 1238, 2" Ibid, 2" Lancet," Aug 4, 1894, p 255, 2" Brit Med Journ," June 2, 1894, p 1190, 24" Lancet," Dec 13, 1888, 25" Brit Med Journ," Epitome, Sept 22, 1894, p 46, 5" Ibid, July 29, 1893, p 292, 2" Ibid, Sept 30, 1893, p 772, 2" "Lectures on Clin Med" (New Syd Soc), vol 11, p 333, 29" Copland's Medical Dictionary," vol 1., p 1002, 3" Ibid, vol 11, p 65, 3" "Principles and Practice of Physic," 4th ed, vol 11, p 923.

Synotsis—Vol 1802, p. 100. Asthma and affections of the skin, p

Synopsis —Vol 1892, p. 109, Asthma and affections of the skin, p 230, Erythema multiforme and other erythemata classified, p 420, Psoriasis an angio-neurosis Vol, 1893, p 221, The erythemata and toxis Vol 1894, p 289, Eruptions and fevers

#### ANOREXIA.

Synopsis — (Vol 1894, p 25) Penzoldt found that Orexin restored or increased the secretion of hydrochloric acid by the stomach He gives 5 to 7 grs daily at 10 a m for periods of one to six days, one dose often sufficing to restore an impaired appetite

### ANTHRAX.

T Colcott For, MB

Maffucci's r treatment consists in the injection of r per cent solutions of Carbolic Acid into the pustules and around

Sistini used 3 per cent and 2 per cent solutions, and injected 1 gramme of fluid each time. Eight, three and two injections were given on three consecutive days respectively. Corrosive sublimate dressings were applied, and large quantities of **Phenate of Quinine** were given internally. The patient recovered.

The 'Lancet," mentions that Jainovsky reported seventy-two cases successfully treated by similar injections, as others have done

Moore records a case in which another method of treatment proved successful. He excised the whole of the pustule and dressed the wound with Ipecacuanha and water and double Cyanide 5 grains of specacuanha with  $\frac{1}{6}$  of a grain of Morphine were given every four hours. Ipecacuanha is fatal to the bacilli anthracis, but not to the spores, which are fortunately not present in the human body in these cases.

Anderson,<sup>3</sup> of Mufield, thinks the method by excision unnecessarily severe, and has been successful by making a thorough application of pure liquid **Carbolic Acid** all over the pustule and just beyond its margin

An interesting and comphrensive report on anthrax in London has been prepared by Dr Hamer for the London County Council

REFERENCES — "Practitioner," quoted from "Lo Sperimentale' vol 1, p 4, 1894, 2 "Lancet,' Nov 25, 1893, "Brit Med Jouin,' 1894

Editorial

Muller' refers to different views in connection with local treatment It is impossible to destroy the disease by excising the site of inocu-In guinea-pigs amputation of a limb two or three hours after the foot has been inoculated cannot save the animal By the time the injection is ended absorption must have commenced, as is shown by the rapid proliferation of the bacilli in the tissues The disease produced by anthrax would appear to be largely due to toxic action It may, however, be difficult to find bacteria in the blood, when absorbed they may be deposited in parts where the circulation is slow, as in the liver, spleen, and mailow of bones. It has been shown with almost certainty that products may be isolated from anthrax cultures, which produce symptoms like those due to anthrax Whether phagocytosis plays a part in human anthrix is undecided The author's observations would lead to a negative conclusion Different organs have different capabilities of dealing with anthrax Thus, in rats the spleen seems to have the chief action, but in rabbits the liver. In man enlargement of the spleen is noted early

TREATMENT -It must be the object of treatment to get the cells at the site of inoculation to arrest the dissemination of the bacteria, and to protect the cells in the whole body against the poisoning. If excision of the inoculated part cannot ariest the disease, it might be thought that the anthrax bacilli and their products might be let out by incision. The author concludes, however, that incision should

not be practised. Anthrax is one of the most viiulent of the blood parasites, and by incision there is the danger of a fresh invasion of the blood in the vessels thus laid open. The products at the site of inoculation are haimful to the individual if absorbed, but they are also destructive to the anthrax bacilli in situ. The line of treatment recommended by the author is the following. The affected part and adjacent joint are fixed to prevent dissemination. The limb is also elevated to assist the venous return so that more arterial blood may come to the part. Mercurial Ointment is applied to prevent secondary infection. Means are adopted to improve the circulation, such as Alcohol in large doses and nutritious diet. All the cases, including severe ones, which have been thus treated in von Bramann's clinic since 1890, have recovered.

REFERENCE — "But Med Jouin"

Synopsis —(Vol 1894, p 79) Strisover injects 8 to 10 syringefuls of 3 % Carbolic Acid solution into the centre of the ulcer.

## ANUS.

Hartmann's says that tuberculous ulceration of the anus is much less common than fistulæ and tuberculous abscess. The affection appears to be much more common in the inale sex. In many cases diarrhæa was a prominent symptom. According to Hartmann the disease commences insidiously, and is first recognized by the presence of slight pain during defæcation. In the majority of cases the ulceration extends upwards as far as the level of the inferior extremity of the rectum; in two cases only out of twenty-nine cited was it entirely cutaneous. In nearly half of the cases enlargement of the inguinal lymphatic glands was observed. The growth of the ulcerations is very slow. After having attained a certain size they remain stationary, if not treated

TREATMENT—Haitmann recommends ablation of the ulcer with the **Thermo-cautery** or with the **Galvano-cautery**, if the condition of the patient will admit of it. In some cases much good has followed the use of **Iodoform Ointment** after the greater part of the ulcer has been removed. If the general condition of the patient does not admit of these procedures it is recommended that general treatment for tuberculosis should be carried out. Lastly, pain may be relieved by the use of **Opium Suppositories**, the application of **Chloral**, i per cent, or of a mixture of **Subnitrate of Bismuth** and **Iodoform**. In one case success was obtained by applying a  $\frac{1}{8}$  per cent solution of **Nitrate of Silver** regularly for sixteen months

A L Berger 2 speaks well of the treatment of pruntus ann by

inserting into the onfice (for about 1 inch) a piece of cotton wool soaked in Liquor Calcis Chlorinatæ. When slight burning or smarting is felt, the plug should be extracted, and the anal region washed out with the same lotion, after which the parts should be left to dry spontaneously. The itching is said to vanish instantaneously, while after a few applications of the remedy any accompanying symptoms (such as swelling, ecrematoid rash of the permeum and scrotum, etc.) also disappear

Balfour 3 reports that he has almost never failed to obtain prompt relief in cases of pruntus of the anus and vulva from an ointment containing 80 grains of Calomel to the ounce of Yaselin or other excipient

REFLERINCES - "But Med Jouin", "Ibid, "Med Age," Dec 26, 1893

Synopsis—(Vol 1894, p 80) Adler advises Bland Diet, avoidance of drastic purges, mild aperients or enemata of Warm Water or Flax-seed Tea To relieve spasm of sphincter, introduce the following half hour before using the enema B. Ext Belladonn gr \( \frac{1}{2} \) to \( \frac{1}{2} \), Cocain Hydrochlor. gr \( \frac{1}{4} \) to \( \frac{1}{2} \), Ol Theobrom gr ro, M et ft suppos, or the following ointment (Cripps') B. Ext Conii \( \frac{1}{2} \)i, Ol Ricini \( \frac{1}{2} \)ii, Ung Lanolini \( \q \text{s and } \) and shear a small quantity over the parts five minutes before a motion is expected, and also afterwards Rigid cleanliness is important. Nitrate of Silver, Acid Nitrate of Mercury, Fuming Nitric Acid, Carbolic Acid, Sulphate of Copper, and the Actual Cautery are all advocated, but the first is best and is applied in a solution of 10 to 30 grains to the ounce once every twenty-four to forty-eight hours A 4 % solution Cocaine Hydrochlorate should be applied before any caustic. After applying Nitrate of Silver, smear with Iodoform Ointment, 30 grains to the ounce, or use Iodol daily, introduction of a full-sized bougie of wax or tallow to stretch the sphincter, previously using Cocaine or Belladonna Ointment. The operative measures are Forcible Dilatation, Incision or Dilatation and Incision combined The last is the most certain

## APPENDICITIS.

A W Mayo Robson, FRCS.

Although it is almost impossible to add anything new to the subject of appendicitis, it has been very fully and moreover very usefully discussed in the various journals during the past year; in fact the literature of the subject is so great that it is quite impracticable to notice all the papers in a short article

As D1 Rushmore has remarked, "the treatment of appendicitis by early operative interference appears to be passing through the same stages that have marked the progress of almost every important change proposed in the management of either medical or surgical diseases. Ridicule, sober judgment based on experience, and adoption or rejection, constitute these three stages." The

first is passed, and we are now well advanced in the second, probably the ultimate issue will be found in a middle course between the American and English methods, for while English surgeons may often be rather too conservative, some Americans advocate early operative interference in every case

There is perhaps no subject of greater interest to both physician and surgeon, or presenting gleater difficulty in deciding on the appropriate line of treatment to be pursued in each individual case, than that of inflammation staiting in the neighbourhood of the cæcum and for so long known as typhlitis or perityphlitis, but which more recent researches have told us is practically always dependent on appendicitis in one or other of its forms wish to be quite clear, in the first place, as to what is meant by appendicitis, and to understand this it may not be unprofitable to consider the appendix vermiformis as a thick hollow tube of adenoid tissue resembling the tonsils in structure, lined on its inner surface by a layer of epithelium, and covered on its outer by a muscular tube and a peritoneal investment. The continuity of the tube with the intestine, always containing septic material, the thin layer of epithelium alone, guarding the tonsil-like tissue from infection, the narrow lumen of the tube, easily blocked by the swollen lymphoid tissue, the muscular layer readily excited to severe and painful spasm, and the thin peritoneal investment, part of the general peritoneal cavity-constitute an anatomical series which may not inaptly be teimed a veritable death-tian. when from any local cause, whether in the shape of injuly of disease, the protecting epithelium becomes displaced, allowing bacterial invasion of the lymphoid tissue and producing an infective inflammation which is known as "appendicitis" which may be acute, subacute, or chronic, the last-mentioned being the form that usually furnishes the cases of recurrent appendicitis. This infective appendical inflammation may pursue one of several courses, or several courses together, and among these the following may be mentioned --

- (1,) Local adhesive peritonitis by direct irritation of the peritoneal envelope, leading to adhesions of the appendix to neighbouring parts
- (2,) Abscess, either subpersioneal, due to lymphatic infection, or within the tube, due to ulceration of mucous membrane, the lumen of the tube having become blocked. The abscess, once formed, may burrow between the layers of the mesentery of the tube, forming an extra-persioneal abscess, or if poured out through the personal cases.

toneal coat of the appendix it may be limited by the adhesion of neighbouring coils of intestine, or may burst into contiguous viscera if adhesions have occurred, producing cystitis, nephritis, etc., according to its course, or may lead to a chronic septraemia, or it may rupture into the general peritoneal cavity, producing perforative general peritonitis

- (3,) Inflammation may extend along the lymph channels to the cæcum, producing a true typhlitis or pentyphlitis, which may or may not end in suppuration
- (4,) Infective thiombosis of the vessels—if of the single aitery, leading to gangiene of the appendix and acute peritonius, if of the veins, leading to septicæmia or pyæmia, or possibly to abscess of the liver
- (5,) General peritonitis by direct extension without perforation, producing paralysis of bowel and symptoms of acute intestinal obstruction
- (6,) Violent colic, due to the irritation of the muscular coat and its violent contractions to try to force the contents of the tube, whether fæcal or other concretion, or pus or mucus, through the contracted orifice into the cæcum
- (7,) Stricture, due to the healing of an ulcci, and accumulation of mucus in the distil end of the tube, producing periodical attacks of colic

In the "Lancet," for June 30, 1894, we reported a series of nine cases of Recurrent Appendicutes operated on successfully in the quiescent period, each case having had numerous attacks, and we there remarked —

In such cases there are clearly three courses which may be pursued (1,) Non-operative, trusting to rest and diet, with opium if required, in order to bring about resolution in the hope that the existing attack may be the last, (2,) Operation on the second or third day of a seizure, as advised by Dr F S Dennis and other American surgeons, who discourage the removal of the appendix between the attacks on the chance that there may be no recurrence, (3,) Operation in the quiescent period, between the seizures

My practice will show that I decidedly prefer to operate in the quiescent period if opportunity be given to choose the time (1,) Because the patient is likely to be in the best possible condition, (2,) Because there is less likelihood of there being an extensive collection of inflammatory products in or in the neighbourhood of the appendix, and therefore there will be less danger of soiling

the general peritoneal cavity, and less fear of peritonitis, (3,) An operation in the quiescent period seldom requires drainage, and therefore the wound can be made secure, and there will be less likelihood of heinia following operation, and (4,) The appendix can be dealt with in a more satisfactory manner than when it is acutely inflamed and hidden by greatly distended intestines

In deciding on the line of treatment, quâ medical or surgical, the patient should have matters fully explained to him, the dangers of recurring attacks, with the sufferings and inconveniences, being balanced against the risk of operative interference and the results gained by operation, therefore in all these cases I would unge the co-operation of physician and surgeon, so that, if possible, the opinion given may be free from bias Can these several risks be estimated? Fitz gives the mortality of perityphlitis medically treated as it per cent, this is probably too high for attacks of recurrent appendicitis, but who is to say that in any case the next seizure may not end in perforation and death? What are the inconveniences? In all the cases related, incapacity for the ordinary pursuits of life and piactically chronic invalidism were marked features What is the likelihood of recurrence! In the cases related there seemed to be every probability of the recurrences being repeated indefinitely, and I should say that if in any case the attacks were repeated two or three times they would not unlikely necur many more times until some complication supervened

What are the usks of operation in the guiescent period? Here we stand on more certain ground, for published statistics prove the dangers to be very slight in the hands of those accustomed to such operations—I believe not more than 2 or 3 per cent And, lastly, What are the results which may be looked forward to after recovery from operation? In such cases as have been reported, and in my own now mentioned, the patients have been apparently completely cured

Although I do not agree with those surgeons who argue that every case of appendicitis should be operated on, I do feel that in recurrent appendicitis operation should be resorted to as soon as it becomes evident that there is a probabilty of the attack being repeated, especially as the operation is one that can be undertaken in the quiescent period with every prospect of immediate and ultimate success

Appendicates Obliterans - Senn's describes a pathologically and anatomically well defined form of appendicitis that has hitherto not been separately described The characters of this morbid condition which is called "appendicitis obliterans" are described in the following conclusions —

- (1,) Appendicitis obliteians is a comparatively frequent form of relapsing inflammation of the appendix vermiforms
- (2,) It is characterized by progressive obliteration of the lumen of the appendix, by the gradual disappearance of the epithelial liming and glandular tissue, and the production of granulation tissue from the submucous connective tissue which, by transformation into creatricial tissue, starves out remnants of glandular tissue, and finally results in obliteration
- (3,) The obliterating process manifests a progressive tendency, and may finally result in complete destruction of all glandular tissue and obliteration of the entire lumen
- (4,) The incipient pathological changes occur either in the mucous membrane of the appendix, in the form of simple ulceration, or as an interstitual process following lymphatic infection
- (5,) The most constant symptoms which attend this form of appendicitis are relapsing acute exacerbations of short duration, moderate swelling at the seat of disease, and persistence of tenderness in the region of the appendix during the intermissions
- (6,) The process of obliteration may begin at the distal or proximal end, or at any place between, or it may commence simultaneously, or in succession at different points
- (7,) Obliteration at the proximal side gives rise to retention of septic material, which finds an outlet through the lymphatics, and gives rise to non-suppurative lymphangitis, and lymphadenitis
- (8,) Circumscribed plastic peritoritis is an almost constant concomitant of appendicitis obliterans, and hastens the process of obliteration
- (9,) Complete obliteration of the lumen of the appendix results in a spontaneous and permanent cure
- (10,) In view of the prolonged suffering incident to a spontaneous cure by progressive obliteration, and the possible dangers attending it, a radical operation is indicated, and should be resorted to as soon as a positive diagnosis can be made.

We have lately operated on two cases of this kind in which the cavity of the appendix was completely obliterated at certain parts, and the small tube had to be separated from amidst a mass of adhesion, but although small, its potency for haim was well illustrated be the frequent repetition of symptoms producing chronic invalidism and by the entire cessation of attack after removal of the offending organ

The use of Aperients in Appendicitis—In the "American Journal of Medical Science," Dr Richardson discusses this subject at length and

remarks, "I believe that cathaitics should never be used in the beginning of an attack of appendicitis, and that the use of opium is fai more rational it anything must be used"

Palpation of the Vermiform Appendix is said to be always possible by Dr Edebohls, of New York, who advocates it as a regular procedure in all cases of pelvic and abdominal discomfort. We have found this statement to be accurate in all cases where the appendix is diseased, and then tenderness is usually present, but where there is no disease. or where the cæcum is distended, we believe the appendix can seldom be recognized

The inch and a half incision and week and a half confinement in appendicitis are being advocated by Dr R T Morniss,2 who insists on the great frequency of the disease, the unfavourable results of late operation, and the trifling mortality of early operation. For the discovery of the appendix, D1 Morriss places a pinch of sodic chloride on the exposed cæcum, which at once produces reversed peristalsis, by then following the course of the broad longitudinal 11bbon which leads to and ends at the appendix, that structure is readily found

Auscultation of the abdomen is of great value in differentiating between distension due to accumulation of gas and that from peritonitis, as in the latter case, as pointed out by Richardson, of Boston, there is an inhibition of peristalsis

McBuinev<sup>3</sup> describes a method of opening the abdomen which he says yields a more perfect result than the older methods. His incision is oblique and the fibies of the external oblique are separated, not divided. The internal oblique and transversalis are and then retracted separated in the same way. When the transversalis fascia and peritoneum are divided, four ictiactors are employed

Rheumatic Perityphlitis - Di Buiney Yeo4 has pointed out that certain cases of appendicitis may have a rheumatic origin, and may yield to anti-theumatic temedies Dr Haigh<sup>5</sup> has seen several such. and advocates the use of the salicylates in their treatment

Appendicular Colic -A term first applied by Talamon to cases of pain in the cæcal region, associated with illitation of inflammation in the appendix, which formed the subject of a paper before the Leeds and West Riding Medical and Chiruigical Society, by Mi Jessop. who described two cases in which he had removed the appendix with a narrowed proximal and dilated distal lumen He thought the term appendicular colic applicable to such cases, and advocated the 1cmoval of the disease, not only for the relief of pain, but in order that more extensive inflammation might be prevented

The papers by Dr Fowler, in the "Annals of Suigery" for 1894, and

the work on the Pathology of the Vermiform Appendix, by Dr Kelynack (H K Lewis), afford much food for thought, and are well worthy of study by those who may have cases of appendicitis to treat-

REFERENCES—" Journal of the American Med Assoc", 2" Therap. Gaz," March 15, 1894; 3" Ann of Sung," July, 1894, 4" Brit Med. Journal," June 16, 1894, 5 Ibid, June 30, 1894

#### ASCITES.

New Sign of Ascites - Dr Gaiciadego recommends the following method as a certain means of diagnosing small effusions in the peritoneal cavity Placing the patient on his back on an inclined plane of 45°. the index finger, well greased, is introduced into the rectum, in order to examine the posterior peritoneal fold, in men, in women, the posterior vaginal cul-de-sac is examined If any effusion exists in the peritoneal cavity, no matter how small it may be, gravity will cause the liquid to descend to the most dependent parts, and in consequence of the position in which the patient is placed, it will gravitate towards the posterior part of the pelvic portion of the peritoneum exploing finger will clearly discover fluctuation, and to make sure that it is produced by a peritoneal effusion it will suffice to change the patient's position, while the surgeon's finger continues in contact with the postero-superior part of the rectum The liquid will then be observed to shift to the side on which the patient lies in his new position. and fluctuation will immediately disappear, because the fluid which produced it has changed place and it cannot any longer be recognized by the exploring finger If the patient is again placed in the former position, the fluctuation is at once felt by the examiner's finger, a cucumstance which permits the suigeon to make suie, in the most positive and satisfactory way, of the existence of an effusion Practice has shown the value, certainty, and importance of this diagnostic sign

REFERENCE —" Pract," April, 1894

#### **ASTHMA**

Einthoven deals exhaustively with the cause and symptoms of asthma nervosum. Three principal theories as to this condition have been advanced (1,) Disturbances of the lesser circulation, causing mechanical difficulties in the movements of respiration, (2,) Spasm of the diaphragm and other inspiratory muscles, (3,) Spasm of the bronchial muscles. Of these the author accepts the last. In reply to Biermer, who says this theory has no experimental basis, he cites some results of his own. By electrical stimulation of the vagi he produced spasm of the bronchi in a dog, without modifying in the animal either the pressure

of the blood or the action of the heart. A more important objection advanced by Riegel and Germain Sée is found in the most prominent symptom of asthma, the over-distention of the lungs with air, which, they argue, cannot be produced by contraction of the bronchial In 1eply Einthoven diaws attention to the type of 1espiration peculiar to sufferers from asthma the powerful inspiration, the slow and feeble exputation, which necessarily must cause this symptom The characteristic paroxysms of asthma he ascribes to the spasm of the bronch impeding the respiration This produces an excess of CO. in the blood, which causes abnormal stimulation of the vagi action and reaction are further influenced (1,) By the recipiocal effects of an accumulation of CO<sub>2</sub> in the central nerve system, and a retardation of the circulation, (2,) By the lapid production of CO<sub>2</sub> in the organism in consequence of the powerful efforts required for the movements of respiration As therapeutic agents he recommends Nicotine and Atropine. The latter drug, especially, brought quickly into the circulation by subcutaneous injections of very small doses, affords speedy relief to the sufferer by breaking the circulus vitiosus which causes the paroxysm

Dr Einest B Sangiee, having made a patient comfortable by the use of  $\frac{1}{2}$  diop of a 1 per cent solution of Nitro-glycerin every half hour, found that when the 1 emedy was exhausted the attack immediately regained its former severity. If the remedy was continued, the patient could not be down, and was able to obtain only a few minutes of fitful sleep. Small pieces of ice wrapped in a towel and applied over the course of the pneumo-gastric in the neck was successful within five minutes in relieving the attack.

The following will be found useful in actions?

The following will be found useful in asthma <sup>7</sup> —				
₽ Chloralis	Syrup of Oranges f5v1			
Potassii Iodidi, āā 35s	Water f <sub>5</sub> v <sub>j</sub>			
Sig —2 to 5 tablespoonfuls a day.				
For spasmodic asthma4 —				
₿ Lobeliæ Pulveris	Theæ Nigræ Pulveris			
Stramonii Pulveiis	Potasu Nitratus, āā partes æquales			
Misce bene et fiat pulvis A little te	o be burned and the vapour inhaled			
For bronchitic forms the following formulæ are recommended —				
R Potassii Iodidi 511	Sp Chloroformi f_iv			
	Vin Ipecac ±51			
	Infus Senegæ, q s ad fāvj			
M A tablespoonful in a wineglassful of water every four hours				
Be Extracti Stramonii gr 🚦	Tincturæ Lobeliæ Æthereæ ill v			
Potassii Iodidi gr v	Aquæ Chloroformi ad 3ss			
Ammonii Carbonatis gr iv				
Misce et fiat mistura. A tables	poonful every four or six hours6.			

REFLERCES—""Bit. Med Jouin", "Amer Journ of Med Sciences," Maich, 1894, "Med Piess," Feb 21, 1894, "Piact," Aug, 1894, "Med Piess," Feb 21, 1894, "Pract," June, 1894

Synofsis — (Vol 1894, p 98) Di Thos J Mays uses Strychnine, beginning with  $J_0$  of a grain subcutaneously once a day, gradually increased to  $J_0$  or  $J_0$  grain, to which Atropine  $J_0$  to  $J_0$  of a grain may be added. The drug may also be given in the following combination  $J_0$ . Phenacet gr 64, Quinine Sulph gr 32, Ammon Mur 5  $J_0$ , Pulv Capsici gr 4, Strych Sulp gr  $J_0$ ,  $J_0$  it capsulas No 32  $J_0$  — I four times a day, or  $J_0$  Strych Sulph gr  $J_0$ ,  $J_0$  fit capsulas No 32  $J_0$  — I four times a day, or  $J_0$  Strych Sulph gr  $J_0$ ,  $J_0$  Acid Hydriodici,  $J_0$  Hypophosph  $J_0$   $J_0$   $J_0$  — I teaspoonful three times a day. In severe cases Morphia oi Nitro-Glycerine must be added. In the exhaustion stage nitro-glycerine, lobelia and other narcotics are useless,  $J_0$  Rest is all important and Constant Nourishment. Strychnine is useful here also Massage is to be used in desperate cases. Electricity is serviceable. Also Ranfied Air and Calisthenic Exercises obtained in the pneumatic-cabinet treatment. Morphia may be added to the hypodermatic injections of strychnine to piccure sleep. Ruel suggests the use of Ammonium Chloride to prevent the formation of the spiral formations found in the sputa of asthmatics. By Pot Iod  $J_0$ , Tinct Scill  $J_0$ , Tinct Stramonii  $J_0$ , Ext  $J_0$  Cyrrh  $J_0$  Liq  $J_0$ ,  $J_0$  Atheris  $J_0$ ,  $J_0$  Ad  $J_0$  Ad  $J_0$  And  $J_0$  Are the spiral formations found in the sputa of asthmatics. By Pot Iod  $J_0$ ,  $J_0$  Tinct Scill  $J_0$ ,  $J_0$  Tinct Stramonii  $J_0$ , Ext  $J_0$  Cyrrh  $J_0$  Sig. Atheris  $J_0$ ,  $J_0$  Ad  $J_0$  Ad  $J_0$  Ad  $J_0$  Ad  $J_0$  Atherical asthma. For nasal asthma  $J_0$  Cocain, Hydrochlor  $J_0$  part,  $J_0$  Triturated Camphor  $J_0$  parts,  $J_0$  Bismuth Subnitratis,  $J_0$  parts,  $J_0$ 

#### ATHEROMA.

Synopsis — (Vol 1894, p 24) V Oefele considers that Nerium Oleander is indicated in atheroma if diarrhoa or vomiting be not present. It is given in concentrated infusion, the daily dose equalling 1 to 7 grains of the raw drug

ATROPHY (Muscular). Allan McLane Hamilton, MD, New York
Peniose and Tuiner presented to the Clinical Society a case of the
non-spinal form of idiopathic muscular atrophy, which was interesting
because it showed symptoms of three nervous diseases, namely,
pseudo-hypertrophic muscular paralysis, idiopathic muscular atrophy,
and the condition known in France as the Landouzy-Dejérine disease,
the facio-scapulo-humeral type of muscular atrophy
Erb had shown
that the whole of these affections were but varieties of muscular dystrophy

Reference —" Lancet," Feb 3, 1894, p 209

BERI-BERI. Allan M. Lane Hamilton, M. D., Activ York

Scheuber states that this is doubtless a pure miasinatic affection developed under certain conditions of high temperature and moisture, and presenting the symptomatology of a multiple neuritis. The largest number of cases occur between the ages of sixteen and twenty-five, and the disease is most prevalent in the months of July and August

Four types of the disease are described (1,) An incompletely de-

veloped or rudimentary form, (2,) An atrophic form, (3,) A drop-sical, or dropsical and atrophic form, and (4,) An acute pernicious or cardiac form. In many cases the termination of the disease is recovery, but in acute cases, especially where there is some cardiac complication, the reverse is the rule. In the acute pernicious form, which is that in which the cardiac symptoms are those of insufficiency, there is very apt to be anasarca and serous accumulations. In nearly all cases there is weakness of the lower extremities, various disturbances of sensation, and preservation of the cutaneous reflexes.

REFERENCE —" Med News," July 7, 1894

Synopsis — (Vol 1894, p 100) For the heart paresis and pulmonary congestion and œdema, Nitro-glycerine is a useful palliative during the paroxysms of dyspnæa Simon gives 5 to 10 drops of a 1 % solution repeated in diminished doses every fifteen or thirty minutes Von Tunzelmann has used hypodermic injections of Digitalin for the cardiac paresis

# BLADDER (Surgery of).

E Hurry Fenwick, FRCS

Absorption by the Urinary Bladder — The conflicting accounts which are published yearly upon the absorptive power of the bladder and urethia continue Bazey has come to the conclusion that the idea that the bladder is unable to absorb is erroneous. Injections of poisons into the bladder kill animals with as great certainty as if made into the rectum or subcutaneously. Chemical and microbic poisons were used in his experiments. Cocaine, strychnine, and hydrocyanic acid, kill animals in a few minutes, belladonna, curare, and pilocarpine, produce their effects much more slowly.

Pneumococcus injected into the bladder of six labbits produced a fatal result in five instances, three died in five to six days with pleural and peritoneal exudations and without renallesions. Maceiation of gangrenous muscle by the septic vibilo, after being passed through a Chamberland's filter, was injected into the bladder of a labbit, and the animal died in twenty days. Water appeared to be absorbed by the bladder also. Absorption by the urethra appeared to be very active, while that by the ureter was less so, but when the toxic fluid reaches the level of the calices death depended on the dose

Analgesic Injections --Vigneun finds that intravesical injection of Antipyrin is an excellent remedy for pain in cystitis. The bladder should not be in a condition of over-distension. A solution of 1 in 25 of antipyrin is used, and 10 to 20 grammes of it are thrown into the bladder and left in for ten minutes.

Injection for Cystitis —G Colosanti 3 advises washing out the viscus with 16 to 1 per cent. solution of Ichthyol in catalihal affections of

the bladder Pain is relieved, mcro-organisms are destroyed, and ammoniacal fermentation prevented by this means

Vesical Atony —Rusconi 4 records a case of vesical paralysis following typhoid, accompanied by general muscular weakness and neurasthenia, all of which symptoms disappeared after five injections of Testicular Juice.

Rupture of the Urmary Bladder —Sieui<sup>5</sup> shows that the mortality from traumatic rupture of the bladder has during the last fifteen years been reduced from 90 to 54 per cent. This decrease is due to early operative interference. The two forms of rupture—the intra-peritoneal and the extra-peritoneal have a different death-rate. Thus, of thirty-four intra-peritoneal ruptures fourteen recovered and twenty died, of eighteen extra-peritoneal ruptures ten recovered and eight died. Co-existing fracture of the pelvis adds greatly to the gravity of the case

Sieur regards the following symptoms as the most important signs of intra-peritoneal iupture of the bladder. A peculiar pain felt at the time of the injury, chilling of the surface of the body which persists for some time, an urgent desire to urinate which the patient cannot satisfy, the absence of any vesical swelling above the pubes, the absence of urine in the bladder or its presence in a very small quantity.

In cases in which there is doubt as to the seat of rupture the median suprapubic incision should be used, the peritoneum only opened after the cavity of Retzius has been explored. Suture should, it is submitted, be attempted in every case, if possible. Sieur concludes that surgical intervention should be practised in every case of vesical rupture, whatever the form of injury may be, unless there has been either very intense nervous shock, or the patient has been reduced to a hopeless state of urinary infiltration and general poisoning.

Vesical Fistulæ as a Complication of Pelvic Suppuration —Dr. Cullingworth, in an address on Pelvis Abscess, mentioned that it was commonly stated that cellulitic abscesses frequently burst into the rectum, vagina, and bladder. This assertion rested on slender foundations. Many of the cases quoted in support of the statement belong to an era when little was known of the pathology of pelvic inflammations, and on carefully reading them through in the light of our present knowledge it was easy to see that at least a considerable number reported as cellulitic abscesses were really cases of intra-peritoneal suppuration, originating in suppurative disease either of the ovaries or tubes. He gave the following interesting case as one in point. The patient, a woman aged thirty-two, had been married nine years, but had never been pregnant. Six months before her admission she had, what was supposed to be, an attack of influenza-

She kept her bed for a fortnight, and then went into the country Whilst there she noticed some thick yellow matter in her urine, which continued in amount to half a fluid ounce She had suffered pain from time to time in the right iliac region, but this had never been very severe On examination the uterus was found of normal length. the canal directed to the left A large, hard, uneven, roughly globular mass was felt on the right side of the pelvis depressing the vaginal 100f and extending upwards to the level of the anterior superior iliac Laparotomy was performed, adhesions separated, and an inflamed right Fallopian tube and a suppurating cystic ovary, three inches in diameter, were removed On the under surface of the ovary was a small opening from which blood-stained purulent fluid oozed on pressure, and which probably represented the aperture of communication with the bladder. No attempt was made to close the opening in The unne, subsequently withdrawn by catheten, contained blood and pus The catheter was used every two hours at first There continued a little suppuration from the lower angle of the wound for six months when the sinus finally closed

In a case lately sent to M1 Hurry Fenwick by Dr. Valentine Rees, of Biecon, the opening of a pelvic abscess into the bladder was seen by means of the cystoscope to be so small as only to admit a fine probe, and abdominal section revealed that the source of the pus was beneath the peritoneum. An incision was made through the vagina on to the floor of the abscess and the patient recovered.

Tuberculors of Bladder - Koeing says the positive diagnosis of tuberculosis of the bladder rests upon two conditions—the discovery of the tubercle bacillus, and clinical experiment. The first condition so often fails that he has adopted the second for positive diagnosis This consists in the injection of some of the unine into the eye, the joint, and the pleural or abdominal cavity of a rabbit He employed this method before the discovery of the tuberc'e bacillus, and even yet he resorts to it as the surest and easiest diagnostic help in those cases in which the identification of the geim has not been satisfactorily made these views the collator is in entire accord Some unnes from patients who are on clinical grounds diagnosed to be suffering from tuberculosis are very pale and nearly clear, so clear in fact that doubt is often cast upon the correctness of the opinion. In one or two cases in which nearly clear urine was being passed, a fiesh sample was pronounced by the 'senior in the laboratory to have induced tuberculosis in animals

Tuberile of Bladder—Baidenheuer<sup>3</sup> has dissected away the centie mucous membrane of the bladder in three instances for tuberculosis

of that organ This was necessarily followed by contraction of the bladder and incontinence of urine We are not informed of the ultimate fate of these patients

Tumours of Bladder—Campbell, of Belfast, advocates the following procedure, which he finds facilitates the removal of large tumours of the female bladder—

The vesico-vaginal septum should be incised to a sufficient degree to admit the left forefinger, which can then be used to guide the forceps working through the urethra. In this way any tumour suitable for removal can be quickly, safely, and thoroughly dealt with

Prevalence of Stone in Australia -- Di J B Nash, writing on the Prevalence and Distribution of Vesical Calculus in Australia, concludes that there is an area in Victoria, in the neighbourhood of Sandhuist, Castlemaine, and Ballurat, in which stone is especially frequent The mortality from suprapubic lithotomy, according to Di Nash's tables, is at least 5 per cent in children, and 18 18 per cent in adults

Stone of Bladder —D1 Keen<sup>11</sup> suggests that in every case of renal colic that the bladder should be systematically, and as a routine practice, washed out with a Bigelow evacuator, if the stone is not discharged within a few days

Gilbert Bailing in writes a valuable article on the comparative safety of suprapubic lithotomy, of lateral lithotomy, and of litholapaxy in young males, and shows by statistics gathered from six London and six provincial hospitals that the inortality after the suprapubic is greater than after the lateral operation—174 per cent as against 5 per cent. Litholapaxy is shown to be barely 5 per cent. It is therefore clear, says Mr. Barling, that the operation of election in young males is either lateral lithotomy or litholapaxy.

Suprapubic Sounding and Cystoscopy --M1 Hully Fenwick<sup>13</sup> diew attention to the difficulties in sounding for stone in certain cases of much enlarged or in inegularly enlarged prostate, for calcult were sometimes so deeply fixed behind and below an upraised median lobe or collar that the sound introduced per urethram could not reach them however much rotated it was, or however forcibly it was thrust toward the base over the lobe. Moreover, harmful pressure was often exercised in this manœuvre upon the prostate, and cystopyelitis and hæmorrhage were apt to ensue. He suggested that whenever the prostate was very large, or wherever it was difficult to traverse, or if it bled easily, that an aspirator trocar and cannula should be thrust suprapubically into the full, cleansed bladder, the trocar replaced by a loosely-fitting blunt pilot, and the post-prostatic pouch and bladder base carefully prodded with this instrument to ascertain the absence

or the presence of the stone without incuring those risks which are consequent upon urethral sounding

If it had been determined to drain the bladder suprapubically, a larger trocar and cannula could be employed, and through the latter a straight electric cystoscope, which he had had made, could be introduced into the washed-out bladder, and the interior examined. Mr. Fenwick advised this latter procedure in cases of much enlarged prostate in which a suspicion of benign growth existed, for in these cases the ordinary cystoscope could not be used. If a stone or benign growth was discovered, a director could be passed through the cannula, the latter withdrawn over the director, and the bladder opened by a limited incision on the director. The disease could then be dealt with, and the bladder drained. He submitted that this method of sounding and cystoscoping would save exploratory suprapubic cystotomy, which was a severe procedure in old age, and one which should not be undertaken lightly

Statistics of Stone —Surgeon-Major Freyer 14 publishes the results of a series of eight hundred and fifty-two operations for stone in the bladder by all methods, namely, two hundred and forty-five by perineal lithotomy, six by suprapubic lithotomy, three by rapid dilatation of the methra in females, and five hundred and ninety-eight by litholapaxy, or "lithotilty at one sitting," as the operation is sometimes called. These latter five hundred and ninety-eight cases removed by Bigelow's method demonstrate what a vast influence the modern operation has had in ameliorating the sufferings and diminishing the mortality attendant on stone in the bladder

Freyer has abandoned the use of all but fully fenestrated lithotrites He considers the use of any other kind unnecessary, and almost unjustifiable, considering the danger that exists of *débris* getting impacted in the jaws of non-fenestrated instruments—an accident which cannot occur with fully fenestrated ones when properly used. The use of the lithotrite in the modern operation is to crush, never to fish out, the fragments—a rôle to which it was frequently consigned in the old operation of lithotrity.

Various points are touched upon of extreme importance -

Statistics of Recurrence—"These five hundred and ninety-eight litholapaxies occurred in five hundred and eighty-seven different individuals, the disease having recuired once in nine instances, and twice in one instance. In three other cases litholapaxy had previously been performed by other surgeons. In all these cases long intervals had elapsed between the first operation and the recurrence of the symptoms of stone; and, after careful inquiry, I am bound to say that neither in

the cases of those previously operated on by myself nor in those operated on by others did the recurrence seem to be due to a fragment having been left behind at the first operation. They were all simple cases of recurrence of stone from constitutional causes. In eight other instances the patients had previously undergone lithotomy, three of them twice. Three of these lithotomy operations had been performed by myself. I attribute the rarry of recurrence of stone atterlitholapacy in my practice to the extreme care exercised by me in seeing that the last fragments of calculus are removed. So far as my experience goes, recurrence of stone is as frequent after lithotomy as after litholapacy.

Duration of Operation -- "The length of time occupied by the operation ranged from a couple of minutes to two hours. It will vary, of course, with the size and consistence of the stone, the capacity of the urethia, the facility with which the instruments can be introduced, and the experience and deverity of the operator. I am now in the habit of crushing as much of the stone as possible before with-drawing the lithoritie, so that in most cases of stone of ordinary size only one introduction of this instrument is necessary. The repeated introductions of instruments should, I think, be avoided as much as possible. Rapidity of execution is a quality which comes with practice, and there is no doubt that, all undue haste and roughness of manipulation being avoided, it is desirable to complete the operation as rapidly as possible, particularly when the patient is old and worn by the disease."

Anæsthetics—"The patients were, as a rule, anæsthetised during the operation—During the last three or four years I have, however, been performing the operation without an anæsthetic in an increasing number of suitable cases. With a capacious urethia in an adult I should not hesitate to attack a stone of about an ounce in weight without the aid of an anæsthetic, or with local anæsthesia by cocaine, in a case in which the internal administration of an anæsthetic was undesirable or strongly objected to by the patient"

Operation at a Single Sitting—"There is no point on which I have laid more stress in my published writings on this subject than the absolute necessity of completing the operation at a single sitting, no matter how large the stone may be. This is the essential feature of the operation. Amongst my five hundred and ninety-eight operations, in eight instances only was it necessary to have recourse to a second sitting, and in two cases only designedly. One was that of a boy aged fifteen, from whom I removed successfully a stone (or rather two stones), the débris of which weighed 3½ ounces, the details of which

have been published, the other, that of a man, aged forty-five, with a large calculus, 3 ounces in weight. After removing 2 ounces of débris I had to postpone finishing the operation to a second sitting, owing to the extreme exhaustion of the patient. In this case a fatal result ensued, from pyæmia. In the remaining six instances a fragment was undesignedly left behind at the first sitting, revealing its presence next day by the pain, stoppage of urine, and other symptoms, when it was removed at a second sitting."

Encysted Calculus.—"Hitherto such cases have, by general consensus of opinion, been relegated to suprapulse lithotomy, and I am unaware of any published writings in which dealing with them by litholapaxy has been advocated. When the opening into the sac in which the stone lies is narrow, or when the stone almost fills the pouch, it will be necessary to have recourse to cystotomy, but, so far as my experience goes, such cases are rare, the stone as a rule lying loosely in a wide mouthed pouch. For several years I have now been in the habit of dealing with encysted calculi mostly by litholapaxy, withdrawing the stone into the general cavity of the bladder when possible and crushing it there, otherwise crushing it in the sac."

Litholapary in Male Children - "As already mentioned, there were one hundred and fifty-eight male children, or lads below the age of sixteen, operated on by litholapaxy It was not till 1885, four years after I had commenced to perform litholapaxy in adult males, that I performed the operation in children Though an aident advocate of the modern operation in the adult, I, like most other surgeons, at first opposed its extension to the case of male children, basing my opposition on the undeveloped condition of the genital organs, the bladder being small, the uiethia nariow, and the mucous membiane sensitive and liable to laceration On the other hand, lithotomy in the child had always been a comparatively successful operation, and, so far as my own practice goes, I had no cause in this respect to abandon this operation in favour of litholapaxy, having had the good fortune to have now performed one hundred and ninety-seven lithotomies in male children with only one death. In fact, it was only after having had a iun of one hundred and ninety-one successful lithotomies in children. that a fatal case occurred In spite of this, however, I was so much impressed by the results announced by Keegan in two very able papers published in the "Indian Medical Gazette" in 1885, that I at once ordered the necessary instruments, and decided on giving the operation a tiial Since that time I have performed litholapaxy in male children one hundred and fifty-eight times, with two deaths My first one hundred and nineteen cases were all successful, and I had then

the misfortune of losing two cases consecutively. All our foregone theoretical objections to this operation in case of male children have vanished into thin air when pitted against the stein reality of accomplished facts. Notwithstanding the great success I have had with lithotomy, I have now practically abandoned the operation in favour of litholapary, owing to the two great advantages that the latter possesses—rapidity of cure and avoidance of a cutting operation. To Keegan is due the honour of having, in the face of strong opposition, shown that litholapary in male children is a feasible and safe operation."

Mortality -" Amongst these five hundred and ninety-eight litholapary cases there were eleven deaths, namely, nine amongst four hundred and twenty-six operations on adults, and two amongst one hundred and sixty-four on children. These fatal cases, with the exception of the last two, have been fully reported in the medical journals from time to time, and the details of the remaining two will be given in due course, when I publish my next series of stone operations The causes of death were exhaustion five (with pneumonia superadded in one), peritonitis, two, pyæmia, one, acute nephritis, one, and acute cystitis, two All these were in bad health when coming under operation, except one, and this patient had had retention of urine for thirty-six hours, with the calculus blocking the prostatic unethra. The kidneys were diseased in several of the cases. particularly in one, from whom I removed 34 ounces of oxalate of lime stone, and in the case which died from acute nephritis latter I found at the necropsy two calculi in the right kidney, weighing 2 diachms One patient was ninety years of age One, a child of thirteen years, who died of cystitis, had been roughly sounded a week before coming under my care, since which time he had been in great agony, so that probably the bladder had been injured during the sounding"

Aero-cystoscopy — Howard Kelly 15 has published an article on "The direct examination of the female bladder with elevated pelvis. The catheterization of the ureters under direct inspection, with and without elevation of the pelvis"

The main steps of the piocedure he recommends consist (1,) In emptying the bladder with a catheter, (2,) In elevating the patient's hips from eight to twelve inches, so that the residual urine will run up to the apex, (3,) The weight of the abdominal viscera being removed the bladder is distended with air, (4,) In the gradual dilatation of the uricthia, (5,) In the employment of large, straight, open endoscopes, and (6,) In the use of a strong light from an Argand burner or electric

lamp held near the pubes, and reflected into the bladder by a head mirror The graduated dilators are passed until sufficient calibre has Kelly says many take No 16 Nos 12 and 14 pass been obtained early in most cases Suppose a No 12 dilator passes, then introduce the speculum of the same size and remove the dilator Thus by means of a simple speculum and proper posture all parts of the audistended bladder are rendered visible. To inspect the upper and anterior zones the patient is placed in the knee-chest position. Applications may be made to all parts of the bladder and urethra Small quantities of urine are removed by pledgets of cotton held in delicate mouse-toothed forceps, and applications are made with a cotton-wound The uneteral openings are seen as little slits in the mucous membiane, and, if watched, urine may be seen issuing from them A probe with a long handle bent at an obtuse angle is of use in verifying the position of the orifices The uneters are catheterized with Kelly's catheter, the patient in position with hips raised, or flat on the table.

D1 W L Bullage 16 speaks highly of this method

REFERENCES.—<sup>\*\*</sup> Bull Gén. de Théiap," Feb 8, 1894 (Epit "Biit. Med Jouin," p 48, 1894), <sup>2</sup> Concouis Med," Aug 11, 1894, <sup>3</sup> "Rif Med," Jan 27, 1894 (Epit "Biit Med. Jouin," p 44, 1894), <sup>4</sup> "Gazz Medica Lombardi," June 29, 1893, "<sup>5</sup> Rev de Chir," March, 1894, <sup>6</sup> "Brit Med Journ" in, p 81, Nov 4, 1893, 7 "Lehibuch dei Specielle Chiungie" ("Annals of Suig," July, 1894), <sup>6</sup> "Centialblatt fui Gynak' No 14, 1894, <sup>9</sup> "Biit Med Jouin," p 127, pt 1, 1894, <sup>10</sup> "Austialasian Med Gaz," 1893, <sup>11</sup> "Annals of Suigery," vol Nix, p 691, <sup>12</sup> "Biit Med Jouin," p 959, pt. 1, May 5, 1894, Ibid, p 860, pt 1, 1894, <sup>14</sup> Ibid, June 16, 1894, p 1294, <sup>15</sup> "Amer Jouin of Obstetiics," Jan, 1894, <sup>16</sup> Boston Med and Suig Jouin," July 26, 1804. July 26, 1894.

Synopsis - (Vol 1894, p 107) Dr Traill Green gives a 10-grain dose of Phenacetin at bed-time for senile vesical irritation Abrasion and fissuring of the mucous membrane at the neck of the female bladder, accompanied by frequent micturition and tenesmus are met by regulating the diet and administering Alkaline Diuretics, and the cautious use of Salol, Boric Acid and Oil of Sandal wood the first two in 5-grain doses four times a day, sandal-wood in 10 to 20 in doses one hour after meals For violent tenesmus, instillation of a 4% solution of Cocaine, dilatation of urethia and application of Nitrate of Silver solution, 20 to 60 grains to the ounce spinished through a speculum, daily irrigation with Potassium Permanganate Solution (r to 6,000), Zinc Permanganate in the same strength, or Mercury Bichloride (r to 10,000) Sulphate of Copper (ro to 20%) solution, or Carbolic Acid and Iodine, equal parts of each, are sometimes better than silver nitrate Croom protests against the use of opiates in chronic cystitis in the female Antiseptic irrigation with Boric Acid, or a warm solution of Corrosive Sublimate, I in 3,000 or 4,000 of water, using it for at least half an hour and repeating three times a day, depletion by means of Leeches, lapid Dilatation of the urethra with Simon's dilators, Kolpocystotomy by the galvano-cautery or scissors. Harrison employs Ergot combined with Cantharides and Nux Vomica for atony of the bladder Brunton advocates Nux Vomica for imperfect evacuation, and Belladonna for incontinence. If belladonna fails, Cantharides, or the two may be combined. For early cystitis, Otis finds an injection of Silver Nitrate relieve pain and frequent mictuition. In sub-acute cases he injects mild solutions of the same. In senile cystitis he uses injections of Salicylic Acid Guyon employs Sublimate Solution, it to 5,000, in the various forms of cystitis. Friedlander uses the inquid extract of Pichi-pichi in doses of it teaspoonful thrice daily for gonorrhæa, nervous irritability of the bladder, and prostatitis (p. 32)

#### BOILS.

Synopsis — (Vol 1894, p 11 & 123) Asaprol 30 to 60 grs internally as an intestinal antiseptic, also in solution 5%, or ointment 1 to 3 Chloral Solution, 5 iv - 5 j, constantly applied to boils

# BREAST (Diseases of).

Galactophoritis - Boissaid distinguishes galactophoritis - inflainmation of the mammary ducts and acini-from lymphangitis, which attacks the connective tissue around the gland. The two forms are often mixed, and some of the worst cases of fistulous tracks and fiequent repetitions of acute inflammation are the result Uncomplicated galactophonitis may anse from a very slight abrasion near the orifice of a duct, or it is possible that it may follow the entiance of stieptococci oi staphylococci into a healthy duct. The disease causes little pain, slight feverishness, but often no 11gor, but free pus issues from the nipple Milk containing pus, as compared with pure milk, is of a grayer or greener hue, and is not so quickly absorbed by wool kept against the nipple. It does not freely trickle from the nipple, but tends to clot around the part, being less fluid than good milk The child invariably suffers, he rapidly loses weight, and drairhoa with green stools follows Death is almost certain Boissard insists on immediate cessation of lactation from the affected breast, or altogether when both glands are involved He recommends that (as his method causes pain) the patient should be put under chloroform, and pressure applied to the breast till every drop of pus is squeezed out. The gland is pressed from cucumference to centre. When no more of the puscharged milk escapes, the nipple and breast must be freely pulverised for half an hour with a solution of Sublimate or Naphthol. Then a compless must be applied, and kept on till the next manipulations Only three or four applications of this method are needed, and the patient gets well within a week On the other hand, any mere palliative treatment will certainly kill the child and place the mother in great danger of suppuration of the breast

Verneuil<sup>2</sup> advocates **Compression** of the breast, not only in cases of inflammation, but also in cystic tumour. He has devised very light stays, made of perforated leather, and laced behind. The pressure is easier to apply, more uniform, and more constant than when bandages are used. The patient herself places layers of wool, gradually increased in thickness, between the breast and the apparatus. Verneuil insists that operation is rarely needed in cystic disease of the breasts. He has treated by **Alkalies, Arsenic**, and compression two patients who had undergone amputation of one breast, and asked him to remove its fellow. In both cases the remaining breast was cured. He also cured by compression a bad case of hypertrophy of the breasts in a girl of eighteen, where amputation had been proposed.

Cracked Nepples<sup>3</sup>—The direct relation of mammary abscess occurring during the period of suckling and excoriations of the nipple is now fully admitted. Many mothers object to suckling their infants on account of the dread of this complication. Artificial feeding, with its frequent failures, is then resorted to, and the child suffers. Antiseptic washing of the nipples has greatly diminished the frequency of abscess of the breast, but cracked nipples continue to be of common occurrence. For the last ten years Professor Pinard has been in the habit of advising nurses as a matter of routine to keep the nipples covered with a compress saturated with a solution of Boric Acid. This precaution has had the effect of markedly diminishing the frequency of lymphangitis, but instances of an increase of temperature in young mothers, due to microbian infection of the nipples are still numerous.

M Lepage strongly recommends that the nipples should be regularly washed with the following solution Red Iodide of Mercury, 10 to 20 centigrammes (2 to 4 grains), Spirit of Wine, 50 grammes (1\frac{1}{2}\) ounces), Glycerin, 500 grammes (1 pint), Distilled Water, 450 grammes (1 pint) If after using this for a few days, the ulceration disappears, substitute a solution of boric acid Any crack that may develop is covered with tarlatan, moistened with the mercuric solution

The following figures appear to confirm M. Lepage's good opinion of the comparative value of his method. In three hundred and thirty-one cases of lying-in women, whose breasts were treated by the Pinard method there was an increase of temperature in sixty-seven, the corresponding figures in M. Lepige's cases being twenty three out of four hundred and forty. Moreover, the healing of the cracks is said to be expedited and the pain greatly diminished by the mercurial treatment.

REFERENCES — "Bit Med Jouin,", "Ibid, "New York Med. Journ," Maich 17, 1894, and "Lancet"

## BREAST (Fissured Nipples).

Synopsis — (Vol 1894, p 131) Ichthyol-lanolin Salve, 10 % Cocaine Solution, 5 or 10 %, 18 a useful palliative measure For unhealthy fissures, cauterisation with Lunar Caustic, or Curetting after applying cocaine, the latter measure being followed by application of Ammoniated Mercury Ointment, Balsam of Peru, Aristol, or other antiseptics A deep seated ulcer may require one or more fine sutures, combined with firm breast compression and rest for thuty-six hours Bichloride Wash and Carbolic Solution are severely irritant, however weak, and are contia-indicated Creolin or Thiersch Solution, 1 %, may be used as antiseptics Oehren advises R Ichthyol 4 o, Lanolini et Glycerini aā 5 o, Olei Olivari Mary discountenances massage or rubbing, if breast is inflamed The arm is tied up to secure rest, and locally Iced Lead Water is constantly used Internally Potassium Iodide, 3 gis, is given once only and followed by hourly doses of Sal Rochelle, J, until watery evacuations result Allen advocates painting nipples frequently with White of Egg An antigalactagogue application is the following R Camphoi i part, Essent Terebinth 6 parts, M Sig—Apply to the breast

## BREAST (Paget's Disease).

Synopsis — (Vol 1894, p 132) Gamberini and Maioni use a 10 % solution of Sodium Ethylate Elliot obtained good results from Fuchsin, B. Fuchsin Pur gr 13ss, Lanoline 31, Aq Rosæ 3vij, M

#### BRIGHT'S DISEASE.

Synopsis — (Vol 1894, pp 13 & 137) Millard places cases on full doses of Potassium Iodide, also large doses of Fowler's Solution with Corrosive Sublimate, in other cases he uses the Protiodide and Biniodide of Mercury, Ergotinine, Caffeine, Strophanthus, Sparteine, Arsenic He believes Nitro-glycerine and Strontium to and various Iron Salts be of much value, and where uric acid exists in excess he neutralizes it by means of Vichy, Vals and also Piperazin-water with Phenocol sends his patients to Evian, Vichy or Royat, and if hepatic functions are greatly deranged to Carlsbad, Marienbad or Vichy Huchard employs Digitalin in large doses, avoiding bad effects by a preliminary use of milk diet with absolute rest for a few days, then giving a purge, and on the following morning 50 drops of a solution of crystallised Digitalin (1 to 1,000) given once only and followed by ingestion of I milligramme of crystallised After an interval of from six to fifteen days these measures are repeated Liegeois associates Tannin with Sodium Benzoate for Bright's disease R Sodii Benzoat, Tannin āā 51ss, Ext Gentian qs, M Divide into 100 pills-6 daily Lancereaux advises Cantharides Tincture in epithelial nephritis, beginning with 6 drops daily, increasing to 10 or 12 The following formula may be used in chronic cases with heart failure 12 Tine Digitalis m x, Liq Timitrini mj to ij, Aq Chloroformi ad 3ss, M Sig —Thince daily

#### BRONCHIECTASIS.

Synopsis — (Vol 1894, p 139) R Menthol 10 parts, Guaiacol 2 parts, Olive Oil 88 parts Sig — 51 to be injected into the trachea twice a day

## BRONCHITIS.

In the treatment of bronchitis, rest is required in a room of moderate temperature, Hot Drinks are to be given with small closes of Syrup of Tolu and Mild Alcoholic Stimulation In addition,

every two or three hours, two teaspoonfuls of the following mixture may be used —

R Tincture of Aconite gtt xxx | Cherry-laurel water 5iv Syrup of Narceine 5i | Peppermint water 5iij

At the same time it is well to paint the chest about the area of the episternal notch with Tincture of Iodine.

In the treatment of acute bronchits in the early stages, when there is hyperæmia and fever with cough without expectoration, first rest in bed with sweating, the administration of hot drinks which may contain alcoholic stimulants, and the application over the chest of mild countermitants. For the stage in which expectoration is just beginning and fever is still present, Kermes Mineral, grains 7, and Syrup, 4 ounces, a teaspoonful every two or three hours. At night, for the relief of cough, small doses of Chloral and Morphine in simple syrup, which are placed in milk at the moment of taking, may be administered. For the treatment of chronic bronchits it is well to employ a teaspoonful of Cod-liver Oil with Creasote, and to administer after each meal a mixture composed of —

By Arseniate of Sodium gr j Water Zvij Iodide of Sodium Zij A tablespoonful three times a day.

Or,

 $\vec{R}$  Terpine, Eucalyptol  $\bar{a}\bar{a}$  gr uj To be placed in a capsule and taken three times a day

From a hygienic point of view, the patient suffering from chronic bronchitis should sponge the body every morning with warm water and alcohol, and afterwards use vigorous friction of the skin. He should abstain from tobacco. Should the chronic bronchitis be feetid, it is wise to use every two hours the following solution by inhalation —

R Eucalyptol 31 Water 5vj Alcohol (90%) 5uj

Place this in an inhale and draw in the ail impregnated with the vapour of the medicament. At the same time the following pill may be administered.—

Py Creasote
 Terpine
 Take this pill three times a day,
 Take this pill three times a day.
 Dr Henn Huchaid divides cases of infectious bionchits into three classes (1,) The infection takes place from contagion, that is, by direct contact of microbes already virulent, then isolation is necessary. (2,) The infection takes place by exaltation of the virulence of microbes pie-existing in the upper an passages. Here it is

necessary to attack early and energetically the fermentations of the mouth, which so frequently exalt the virulence of the streptococcus, for example, frequent washings of the mouth with solutions of Boric Acid, Carbolic Acid, or Resorcin; (3,) In the bronchi the microbes of suppuration or putiefaction exalt the virulence of the streptococcus Here it is necessary to obtain bronchial antisepsis by means of Creasote, Eucalyptol, Camphorated Guaracol (guaracol, 5, camphor, 20, sterrlized oil, 100), the creasote in oil (1 in 15), and the camphorated guaracol are used subcutaneously. If the infection has done its work, with the camphorated injections those of Ether or Caffeine should be used in addition.

In the catarrhal affections of influenza, in cases of ordinary bronchitis, and in cases of broncho-pneumonia due to exposure, especially when there is an associated pleuritis, Dr Solis-Cohen-combines the following —

B. Phenol Salicylate (or Cinchonidine Salicyl )grs 3-5 Codeine Sulphate, grs  $1-\frac{1}{2}-\frac{1}{8}$  Mix Dispense in capsule Dose I capsule with water every two to four hours

This, or a similar prescription, is likewise beneficial in the "colds," bronchitic, pneumonic, and pleuritic, that often retaid recovery or cause "set-backs" in cases of pulmonary tuberculosis improving, or apparently well under hygienic and other appropriate treatment. In simple pleurisies and in rheumatic pleurisies the terpin hydrate may be omitted.

A mild saline expectorant in bionchial catairh4 —

R Sodii Chloridi gr iv Spiritûs Chloroformi M v Sodii Bicarbonatis gr ii Aquæ Camphoræ ad 51 Misce et flat mistura Two tablespoonfuls to be taken four times daily

REFERENCES — 1" Therap Gazette," Mav, 1894, 2" American Journal of Med Science," May, 1894, 3" Med Record," Oct 21, 1893, 1" Practitioner," March, 1894

Synopsis — (Vol 1894, pp 12, 20, 24 & 139) B. Extracti Cocillana Fluid, Ext Lippiæ Mexicanæ, āā 5ss M Sig — 30 drops in a wineglassful of water every four to six hours (Wilcox) Decrease the dose if vomiting ensues Murrell employes Terpene Hydrate Solution, containing 5 grs to 5ss made up with Simple Elixir, and flavoured either with Tincture of Virginian Prune and Syrup of Tar, or with Aq Laurocerasi B. Purified Tar, gr 15, Dover's Powder, gr 22, Powdered Benzoin, q s to make 20 pills Sig — 1 to 4 daily in chronic bronchitis with inflammation (Ferrand), a purgative is given twice a week Ammonia is used as counter irritant to the chest, and the fumes of Muriate of Ammonia may be inhaled B. Ac Hydrocyan, dil 5jss, Morph Acet gr jss, Mucil Acac 5j, Syr Pruni Viig 5iv, Aq ad 5vi, M A teaspoonful to be sipped every four or six hours for irritable cough B. Acet Canthar 5ij, Spt

Camph ad  $\mathfrak{F}_{j}$ , M ft lin To be applied to the chest at bed-time R Ammon Carb gr 4, Tinc Scill  $\mathfrak{N}_{i}$  N, Sp Ætheis  $\mathfrak{N}_{i}$  X, Tinct Nuc Vom  $\mathfrak{N}_{i}$  N, Infus Serpentariæ ad  $\mathfrak{F}_{j}$ , M. Sig —2 tablespoonfuls every six hours Spiegeberg found results from 6 doses of  $7\frac{1}{2}$  grs each of Analgen, given during twelve hours for bronchial asthma (p 9)

### BRONCHORRHŒA

$\mathbf{R}$	Copaibæ	<b>511</b> J	Mucilaginis Acaciæ	3v1 <b>j</b>
'	Tincturæ Chloroformi		Liquoris Potassæ	51
	Compositæ	111 XX	Aquæ Cınnamomı ad	중\ 11J
Misce et fiat mistura An eight part to be taken three times daily				
-	// D	., .		

REFERENCE —" Practitioner," June, 1894

## BUBO.

152

After condemning all methods which aim at aborting the inflammatory action, eg, painting with rodine, application of mercurials, lead and opium, aconite and belladonna, cold, heat, blisters, leeches, pressure, etc., Sherrill raises the question why any attempt should be made to abort a bubo when we are unable to distinguish a simple from a virulent inflammation until suppuration and rupture occur?

Instead of wasting time trying to about the inflammation, and after watching the case for two or three days, if the patient still suffers much pain and inconvenience, he resorts to the immediate removal of all the inflamed glands. A free incision over the inflamed tissue down to the glandular structure will reveal the inflamed gland lying loosely in its capsule. Very little difficulty will be experienced in its removal. The hæmorrhage should be controlled and the wound imagated with hot water containing some antiseptic, if preferred, dired and sprinkled with Iodoform; then packed with iodoform gauze and covered with a compress fixed by a spica bandage. The dressing should be changed on the second day, and at longer intervals after that time

The advantages afforded by this method are -

- (1,) A complete and rapid recovery-at the very longest in two weeks
- (2,) Relief of the patient from a number of weeks' suffering and inconvenience, as it is possible for him to be out in three days, and the pain is instantly relieved.
- (3,) The almost certain prevention of a virulent sore, and this of necessity excludes the possibility of the wound being attacked by phagedæna
- (4,) The absence of danger or difficulty in carrying out the treatment

Noble<sup>2</sup> reported to the Vienna Dermatological Society the results of his investigations into the method of treating venereal lymphademitis proposed by Lang

The treatment pursued is as follows When a case was presented in which abscess-formation had taken place, this was punctured with the point of a bistoury and the contents evacuated by moderate pres-The remaining cavity was washed out with a I per cent. solution of Nitrate of Silver driven in with some pressure This solution was evacuated through the puncture and pressure bandages applied In very large abscesses two puncture-points were made. more efficient drainage being thus secured

This treatment of puncture, evacuation, and injection was continued two or three days, until there was no further secretion. This usually requires but two injections. At first, after treatment there is a thick chocolate-coloured exudate, finally only blood-stained serum escapes on puncture, and this, if it persistently accumulates, may often be left to absorption. When a case was presented in which abscess-formation was not complete, showing uncertain fluctuation, the injections of nitiate of silver were forced not only into the cavity left by partial evacuation of the pus, but also in the surrounding infiltrated tissue This causes, in two or three days, a painless softening of the diseased glands, or even brings about a more favourable result, -- z e, prompt resolution of the inflammation The treatment is contra-indicated in the strumous form of buboes These cases require radical operation In seventy cases treated according to the method just detailed the average period of healing was ten days. In eight cases healing occurred in from three to five days, in eight cases cure was not accomplished for twenty-five to thirty days. In the great majority, convalescence was complete in from five to ten days

REFERENCES -- "New York Med Journal," Oct 28, 1893, "Therap. Gazette," June 19, 1894

Synopsis — (Vol 1894, p 141) Lydston advocates early Excision If suppuration is present, free Incision and Curetting are required for a nonvirulent bubo Suturing under antisepsis is justifiable Virulent suppurating bubo requires thorough cleansing with Hydrogen Peroxide, cauteiization with pure Bromine or Carbolic Acid Balsam of Peru is a good dressing for granulating buboes Wielander's abortive method consists of injecting 15 m of a 1% solution of Benzoate of Mercury, followed by compression Otis scrubs the skin around with soap, then washes with Sulphuric Ether, and then Bichloride of Mercury, 1 in 1,000 He next incises with a narrow bistoury, squeezes out the pus, irrigates the cavity with Mercuric Chloride solution, I in I,000, and immediately fills it to moderate distension with waim Iodoform Ointment, 10 %, by means of a glass syringe

#### BURNS.

The following is Unna's prescription for burns -

Lanolini parts x Adipis Benzoati parts x Aq Calcis parts x Aq Calcis R Lanolini

REFERENCE - "Med Press," May 23, 1894

Synopsis — (Vol 1894, p, 142) Liebet dusts on powdered Europhen after opening the blisters, applying the following above this, and on sterilised gauze R. Europhen 8 parts, Olive Oil 7 parts, dissolve and add R. Vaseline 60 parts, Lanolin 30 parts Bienert uses Glycerine for water scaled directly after the accident, applying it on strips of lint Thymol  $\frac{1}{10}$  to  $\frac{1}{10}$ % is usefully added to Carron Oil in treating burns. For children, the following is specially advised R. Bismuth Subnit, gr 30, Acid Borici gr 67), Lanolin 5xvijss, Ol Oliv 5v, M

# CANCER. W H Elam, FRCS, Eng

The term cancer is here used in no limited sense, but in the manner employed by clinical teachers and writers, and implies malignant disease as generally understood. It includes both sarcomata and the different forms of carcinomata and rodent ulcer. The contributions to literature during the past year are very voluminous and in many cases of a very controversial character. No attempt can be made to give a complete review of all that has been written, or to note all the work that has been done in this important field of disease. The following points have been selected for elucidation as being the most essential and practical, which at the same time embrace nearly the whole of the most interesting contributions on the subject.

- (a,) Is the number of deaths from cancer increasing?
- (b,) Have micro-organisms any causal relations with it?
- (c,) How shall we best treat it?
- (d,) What are the prospects of successful treatment?

Other matters relating to cancer will be incidentally referred to, but for the most part all the subject matter must come under the above headings

Increase of Cancer—There is a very widely prevailing belief that the number of deaths from cancer is increasing, or has increased during the past few years. Mr Geo King and Dr Arthur Newsholmer have elaborately examined the statistical evidence on which this belief depends.

The figures of the Registiar-General in his report show that the registered number of deaths from malignant disease was 27 times more in females, and 20 times more in males in 1891 than on the average in the decade 1851 to 1860

Cancer is in a marked manner a disease of mature life, and, as has been noted in these pages previously, a much greater number of people attain to mature life and the "cancer age" than in past years, and as the comparative proportion of those who attain the cancer age with those who died young is now much greater, error may easily creep into our statistics if not carefully scrutimised. There are also

local peculiarities which need to be considered. The average age of females in England and Scotland is higher than that of males, whilst the opposite is the case in Ireland, and the average age of the people in Ireland is much higher than that in England and Scotland, so that the Registrar-General's report in so far as it refers to this subject is unduly unfavourable to the female sex in Great Britain and the male sex in Ireland, and the death rate from cancer in Ireland is increased as compared with England and Scotland

Without following these gentlemen through their elaborate paper it may be briefly stated that the conclusion arrived at by them is that there is no real increase in the mortality from cancer, but that the apparent increase is due to more correct diagnosis, and the apparent proportionate increase to the increase in the number of persons who attain mature age

Ethology of Cancer—It is not necessary here to refer to the many well known hypotheses to explain the origin of cancer—some plausible, some far fetched, some based on statistics of clinical facts, some based on deductions from developmental peculiarities or imperfections

Heredity, age, sex, physiological peculiarities, the influence of chronic irritation, vestigeal inclusion, food, drink, smoking, occupations such as workers in soot, or coal tar products, geographical and topographical peculiarities, all have been discussed in previous volumes. Local and chronic irritation undoubtedly have a larger influence in the causation of cancer than any other known cause, and this should always be kept in mind, both in the treatment and the precautions necessary to be taken for the prevention of cancer

M1 Hutchinson<sup>2</sup> has recorded several cases of epithelioma occurring in people who have taken assenic for some time, and also cases of assenic keratosis. Some of the cases of epithelioma were multiple. It is a well-known fact that assenic taken for psoniasis causes a marked change in the condition of the psoniasis spots, making them redder and more initiable, and this shows in a peculiar manner the action of chionic initiation in making a part more vulnerable to the cancerous process.

Mr D'Arcy Power<sup>3</sup> and Mr Webb have collected several reported cases where within a comparatively short period of time deaths from cancer have occurred in the same house. In one case three persons who occupied the same bedroom in succession died from cancer in a period of nine years. In another case reported by Mr Shattock four people died from cancer in the same house in fourteen years. Mr Cooper, of Chathris, mentions three cases of cancer of the tongue oc-

cuiling in cows on a piece of land near there—Several other similar occurrences are reported of several deaths in one house, and in most of them there was no blood relationship

These facts cannot count for much with our present knowledge. they may be of great import on some future occasion At present it is well to have them recorded When it is remembered that more than 10 per cent of those who attain the cancer age will probably die of cancel, it is easily conceivable that we may get somewhat staitling facts from statistics. The writer knows a short road in which six deaths have occurred from cancer during the last three years, three next door to each other, but in no house has there been more than one case during eight years In regard to areas and particular geological conditions, all statements must be received with caution. It has been said that cancer is more frequently found with a damp clayey soil and beside water than in the opposite conditions, but in one known district more cases of cancer occur on the hill where the soil is gravel and dry than in the valley where the soil is clay Of the facts enumerated above, and which are always dwelt upon in discussing the causes of cancer, all, or several might be selected, and statistics obtained in favour of one or the other having a causal relationship with it At present, however, all that can be truthfully said is that there may be conditions favouring the development of the disease in the same way that bad hygienic conditions favour the spread of fevers One thing is quite certain, viz, that whatever lowers the general standard of health or depreciates the resistence of the tissues to disease, will increase the liability of the individual to cancer. It must be within the knowledge of every surgeon, that patients suffering from cancer of the breast-perhaps the most hopeful of all cancerous affections for treatment--who have been exposed to most unfavourable conditions of environment prior to operation, and can be removed from those surroundings to healthier and better states, survive without recurrence of the disease for a long period, whilst on the other hand those who return to the previously existing state of privation. hard work, and hygienic evils, have a very early return of the disease

Considering all these things we may say that no satisfactory explanation of the cause of cancer has been demonstrated. Speculation and research have been prosecuted in many directions and no doubt valuable information has been obtained, but in the opinion of many the primary cause of this disease has not yet been discovered. That the fruitful results of research in the domain of many diseases now known to be micro-parasitic has directed attention to the possible

parasitic origin of cancer is not matter for wonder, and probably it will be proved beyond doubt as it has been proved to the satisfaction of some, that the productive cause is a micro-organism. If it be parasitic in its origin it can hardly be compared with an infective malady, for every individual is immune to the disease until a certain condition or combination of conditions occur in the individual

At the Medical Congress in Rome, Professor For 4 read a paper on this subject. He reviewed the history of the parasitic theory and the results of the investigations of different observers, and then described the bodies which he believed to be the exciting cause of cancer. They are endoprotoplasmatic bodies, paranuclear, enclosed by a capsule with a double outline, and consist of thin protoplasm and a small central body. In size they vary from that of a small to that of a large nucleus. When the body is large the protoplasm on the surface appears festooned and shaped like a cockade or regularly segmented, and presents the aspect of a rosette

When the parasite increases, the central body increases and the protoplasm decreases. The central body then divides into a number of small round bodies which fill the cyst-like parasitic cell. These bodies are spores. The capsule, the protoplasm and a small amount of mucous substance are coloured deep blue by hæmatovyline and are thus differentiated from the nuclei and protoplasm of the epithelial cell. These parasites are found in nearly all cancers of glandular origin, they are more difficult to find in cancers derived from superficial epithelium.

The parasites are found in the primary mass and in secondary nodules, even the most recent, but are not found in the degenerated areas. In a case of pulmonary cancer the parasites were found in the cylindrical cells, but not in the polygonal cells of which the growth largely consisted. Owing to the number in which they are found in a single cell, and their size, they cannot be mistaken for degenerate nuclei.

M1 Plimmer and D1 Ruffer have described the same bodies M1 Plimmer says he has found them in every case of cancer he has examined, and he has examined four hundred consecutive cases at the Cancer Hospital. He can find them in none but cancerous growths, and he has searched for them in fibromata, papillomata, gummata, neuromata, etc. These gentlemen have described the various stages of the reproductive process of the parasite in the "Journal of Pathology and Bacteriology." M1 D'Arcy Power, after irritating the vaginal mucous membrane of a 1at and placing

there a piece of cancer, succeeded in obtaining these bodies from the infected cells

Mr. Plummer and D1 Ruffer have shown that these bodies exist in the cancer cells in the fiesh state, so that they cannot be the changes in the epithelial cell produced by hardening processes

The various bodies described by many observers, viz, by Korotneff, Jackson Clarke, Wickham, etc, are believed not to be parasitic but altered cells and leucocytes. Other bodies are held to be granules of Altmann, hyaline drops, or to be altered red blood corpuscles.

Many observers object that the bodies described by Foa, Plimmer, and Ruffer, and Soudakewitch are degenerative products, or the inclusions of old and degenerated cells, or blood corpuscles, or chromatic fragments, or the product of the breaking up of nuclei, or the degeneration of the nucleus and nucleon, or the artificial products of staining and hardening reagents

It was also objected that they could not be found in the fiesh state, and could not be inoculated

Mucoid degeneration is the only condition giving a reaction similar to the parasites with hæmatoxyline, but the droplets of mucus are granular, do not possess a capsule, and do not show the differences of structure found in the bodies

The granules of Altmann and the red and white blood corpuscles behave in quite a different way under staining. Fragmentation of a nucleus of an epithelial cell has never been seen to give origin to bodies similar to the parasites. These bodies have none of the reaction of nuclear matter, and cannot be stained by the most sensitive nuclear test.

It is true that cultivations, etc, have failed, but hitherto no cultures have been successful with the plasmoids of malaria which are without doubt protozoa

Failure of cultures is no negative proof in regard to these bodies, nor does the want of success in inoculation of cancer go for much. It may be assumed that cancer can only be transplanted in subjects of the same species and in conditions tavourable for its transplantation. We know now that some animals are immune to certain diseases believed to be caused by micro-organisms, and we also know that parasites are specific for a given organism and for given elements of the same organism

Foa thinks that failure to find the bodies in all cancers may be due to the fact, that the mass only contains spores which have escaped from the capsule into the containing epithelial cell, and that by these spores the infected cell may carry infection to other parts of the body

Mr Shattock, in the Moiton Lecture, goes carefully over the ground of this subject, and discusses it in all its bearings. The only bodies that appeared to him at all suggestive of parasites were those described by Foa, Ruffer, and Plimmer, already referred to He thought the bodies described by Di Cattle in the "Journal of Pathology and Bacteriology," and the "British Medical Journal," April 21, 1894, was only a cell invagination in which the cell protoplasm of the included cell was highly vacuolated and the cell membrane well marked. The bodies described by Jackson Clarke, and others, have been already referred to. It is well to bear in mind that fusion of cells is common in growths, especially when the cells are becoming keratinised, and that it is not easy to distinguish between nuclei in grant cells and the parasites

Mi Shattock<sup>5</sup> described his method of cultivating in sand, in Petii's capsules, growths taken from the margins of a mammary cancer. In five out of six capsules he was able to show actively moving amœbæ, and in some of these there was a process of encapsulation and sporulation going on

Clinical facts have some bearing on the subject, certainly not of a negative character. If cancer be an infectious disease it is a fair assumption that it is a micro-parasitic disease. The following facts are in favour of its being infectious, viz, its frequent occurrence in some localities as compared with others, and in certain houses, the so-called "cancer houses," and its occurrence in more than one member of the same family

Many cases have been known where it has occurred in husband of wife, one consecutive to the other. Cases of "contact cancer" are frequently met with where one growth excites another in apparently healthy skin with which it coines in contact. Regulski found this occur in thirty cases out of a thousand and ten cases of cancer of the lip, where the growth in one lip excited or appeared to originate disease in the opposite lip at the point of opposition.

On the other hand if cancer be an infectious disease one should be able to transmit it by inoculation. Many experiments have been made in every conceivable manner to ingraft or inoculate carcinoma, and it may be said without fear of contradiction that there is no well authenticated case of successful transference of human carcinoma to lower animals. In all cases the ingrafted mass died, or was absorbed, or occasionally became encapsuled. Success has undoubtedly been

obtained in experiments directed to the transmission of the disease from one animal to another of the same species, but this does not really prove the infectiveness of cancer. One should be able to separate the infective material and reproduce the disease with this. Of course this objection might be urged against other diseases which are known to be infective, as will be shown when referring to the question of the micro-parasitic origin of cancer. Probably the infective agent is unable to act except in the presence of the physiological or pathological concomitant conditions which we know favour the initiation of cancer. It is well known that local injury or inflammation due to continued irritation favours the commencement of epithelioma. The failure to separate the infective material or agent would to a certain extent be expected if this be a protozoon as the demonstrations of Foa, Ruffer, and Plimmer tend to show

Boinet<sup>6</sup> with all antiseptic precautions made sixty moculations of scirrhus of breast and epithelioma of lip on rats, rabbits, and guineapigs. In a series of forty intraperitoneal moculations generalisation of cancer took place in one. In fifteen subcutaneous inoculations the results were all negative. Subcutaneous injection of the juice of a lympho sarcoma of the testicle caused a growth of corresponding nature at the point of injection. Injection of the same juice into the pleura of an old rat caused the development of a growth in the lung of the same side.

An important question is not infrequently forced upon the notice of the surgeon, viz. Can a benign growth become a malignant one, or can the removal of a benign growth be followed by recurrence in loco of a growth of a malignant type? This question may undoubtedly be answered in a guarded affirmative manner. Recently Berger reported a case of a young man who had a fibroma removed from the left index finger which had existed seven years. Four years afterwards he disarticulated the same metacarpal bone for a fibroma. Two years afterwards there occurred in loco a tumour which, when removed, proved to be a sarcoma.

Verneuil<sup>7</sup> reported a case of a woman who had successively an uterine polypus, an adenoma of the face, and a cancer of the breast

Routier observed a woman who had syphilitic vegetations at the margin of the anus, which were removed and had the histological characters of a syphiloma. Three years afterwards Routier removed from the groin a large mass of glands which were typical epitheliomata. Three years after this he removed from the lower part of the cicatiix in the groin a small mass of epithelial cancer.

Of course these facts only prove that a part which has been weakened,

or has had its resistance reduced by operation, may become the seat of a sarcoma or carcinoma

Dr Dickinson<sup>3</sup> exhibited specimens to the Pathological Society which appeared to have commenced as fibio-myoma and became sarcomatous. Liebman mentioned cases where pure myomata were found as metastatic deposits in lungs, in which the primary disease was a myo-carcinoma and not myo-sarcoma, and Dr Alban Doran mentioned several similar cases known to him

It is well-known that a mole may become a melano-saicoma, that epithelioma may develop in a wait, scai, lupus, syphilitic soie, etc Mi Hutchinson has reported cases of "aisenic cancer" occurring in those who have taken aisenic for the treatment of psociasis

All these considerations have an important bearing on the question of treatment

Before considering the treatment of cancer it is a natural question to ask what the prospects of success are, and what these hopes are based upon If we have not been able to discover the precise cause of cancer, are we any more able to treat it successfully than in the past? If statistics have any value, if the individual experience of the surgeon does not lead him into enor, there can be no doubt that many more cases are now cured than was the case formerly. As will be seen from the following excerpts, it is on the early and free removal of the disease that we must rely if we are to attain the end so much In all cases when an operation should be undertaken, the patient may almost be promised a ceitain recovery from it, advances in suigery have done this much. In most cases if the disease be temoved freely and all possible infected glands can be removed at the same time, a fair hope of cure may be promised, or at least the patient placed in a position such as to be no more liable to recurrence than to the primary disease Of course people shrink from the thought of operations, and postpone seeking advice until the disease has advanced from a probably curable one to an almost certainly incurable one sufferers could be made to realize that they would certainly recover from operations, and that cancer if recognized in an early stage and removed would probably not recur, our results would be much more

Of course it is only in exceptional cases that the surgeon has the opportunity given him of an early operation and a successful result Sometimes he, too, being uncertain in his diagnosis, allows the favourable moment to slip by, and whilst waiting for the time when the glands become infected and the sequence of symptoms leaves no room for doubt, general infection is taking place and operative interference at

most can only be palliative. Where ever there is doubt an exploratory incision will clear it up

It is said about some forms of malignant disease that the prognosis is hopeless from the first. Cases of saicoma of the femur are almost always fatal. With sarcoma of the humerus the danger of recurrence is great, and here it would be better to remove the scapula and part of the clavicle, so that every muscle connected with the humerus could be removed in its whole extent.

In twelve cases of saicoma of the humeius operated on by Beig mann<sup>9</sup> six were treated in the radical manner suggested, and there was no recurrence, but in six when the possibly diseased muscles were not removed there was recurrence. He always ligatured the subclavian vessels as a preliminary step. In carcinoma of the breast the axilla should always be cleared of its contents, the fascia removed from the pectoral muscle, or, the latter, if diseased, removed in its whole extent

In twenty cases of carcinoma of the breast operated on by Mi Watson Cheyner during 1890, 1891, and 1892, fourteen remained well and four recurred. Out of fifteen cases done more than two years previously, ten showed no indication of recurrence. In all cases the removal was free, the skin, breast tissue, fascia over and part of the pectoral muscle, as well as the contents of the axilla, being cleared away.

Dr Abber leports two successful cases of nephrectomy in children for sarcoma of the kidney, and thinks we may expect more favourable results than have been recorded. Barth collected one hundred cases of nephrectomy for malignant disease, of which forty-two died from the operation, twenty died from metastasis, and thirty-eight remained well.

Signist collected sixty-four cases of operation, of which thirty-two died, nine went a year and a-half and had recuirence, five went beyond two years, and one continued well after four years

TREATMENT—Bacteriological research has directed attention to the treatment of diseases known to be, or believed to be caused by micro-organisms by what are now called toxines. Some time ago tuberculosis, and recently diphtheria, have been treated by hypodermic injections of fluids obtained by pure cultures of the specific microorganism, or in some other manner.

It had frequently been noted that an attack of enysipelas had a very favourable influence in checking the growth of cancer Examples of this have been described in previous volumes of the "Medical Annual," and also a case of saicoma which could not be removed by operation was cured by an attack of typhus fever

Many experienced surgeons have held that free suppuration after

operations for the removal of cancer, lessens the probabilities of recurrence of the disease. It has also been asserted that the cure of cases of sarcoma by injections of arsenious acid was due not to the arsenic, but to the free suppuration caused by the injections, and it is possible that cases reported as cured by injections of pyoktanin were the result of the inflammation and suppuration excited by the injections, and not to the drug injected

Dr Coley<sup>12</sup> has treated twenty-five cases of sarcoma and ten cases of carcinoma by what he terms the combined toxines obtained from pure cultures of the bacillus of erysipelas, and the bacillus prodigiosus. He finds that injections of toxines give as good results as those obtained by the injection of the micro-organism itself. His experience was that the treatment by this method was of very little use in gland carcinoma, beneficial to a slight extent in epithelioma, and of great benefit in sarcoma, especially when the growth is situated in soft tissues. Of the twenty-five cases of sarcoma six appeared to be cured, one case of sarcoma of the tonsil and neck which had twice recurred was cured and remained well three years afterwards. Of the remaining nineteen cases, nine showed marked improvement, eight slight improvement, and two no improvement whatever

Needless to say this treatment was adopted only in cases which were so advanced as to be beyond treatment by operation, and were considered hopeless

Other surgeons do not appear to have had the same success, but a negative result can never have the value of a positive result. If six cases out of twenty-five have been cured, the treatment must be of some benefit. As the treatment by toxines is as useful as treatment by inoculation of erystpelas and is free from danger, it should always be used. The best results were obtained by injecting the fluid into the growth, and when the toxines of the bacillus prodigiosus and streptococcus of erystpelas were used.

Dr. J C. Ross<sup>23</sup> called attention to the benefit he had obtained in cases of cancer from the treatment with **Cinnamon**. He prepared the cinnamon by slowly boiling one pound of the Ceylon sticks with three pints of water until the bulk was reduced to one pint. Of this solution half-a-pint was given daily

Mr Hulke '4 tried this remedy, prepared as above, on five cases in the Middlesex Hospital Three were uterine, one rectal, and one recurrent glands in the neck. In four of ten cases the treatment was continued for nearly three weeks, when the drug became intolerable to the stomach and could not be continued. In the fifth the patient took the medicine for one month, and then begged to be allowed to

discontinue it. In three of the cases there was the definite evidence of increased growth whilst taking the remedy. In none was there any evidence of relief from pain or benefit in any way. Mr. Hulke who had tried cinnamon oil some time before, more especially for uterine cancer, on both occasions, observed absolutely negative results.

The writer some years ago tiled cinnamon oil on many cases in the Cancer Hospital, which were unsuitable for operation, both by application to the ulcer, interstitial injections and internal administration, without any benefit whatever to the sufferer

Dr Beinhaidt<sup>15</sup> has obtained very satisfactory results in the treatment of inoperable cancer of the uterus by injections of **Salicylic Acid.** A 6 per cent solution of salicylic acid in 60 per cent alcohol was injected with a Braun's syringe having a long small needle. The solution was injected into various parts of the growth to the extent of two cubic centimèties at a sitting. The injection caused some pain which quickly subsided. Dr Beinhardt thinks this method approaches very near to curing the disease

Dailer to has found good results from treatment of ulcerating cancers by Methyl-blue. It is his opinion that the apparent failure of this remedy to cure is due to the too early discontinuance of the applications. He first of all cauterizes the ulcerated surface with the thermo-cautery, or applies chromic acid, and then uses a solution of methyl-blue, I in 100, either painting it over the surface or using interstitial injections.

Dr Griswold uses caustics for treating epithelioma of the face, when the patient rejects a cutting operation. He heats Sulphate of Zinc until all the water of crystallization is driven off, he then makes it into a fine powder, and adds to the powder sufficient pure Sulphuric Acid to make a paste. This paste is applied over the sore, care being taken to protect the surrounding parts. In about ten minutes the paste sinks into and destroys the tissues for a distance of one-eight of an inch. This necrosed structure is scraped away with a knife until the unchanged tissue is reached and the paste again applied, and this is repeated four or five times, or until the whole of the disease is destroyed, very little pain is caused and this could be relieved by cocaine.

A case of epithelioma of the coineo-scleial junction was cured by Martin, '7 by injections of **Sublimate** after recuirence subsequent to operation.

Fumagalli reports cases of ulcerating epithelioma being either cured or very materially benefited by being dusted over with powdered **Chlorate of Potash.** 

Professor Lassar<sup>18</sup> showed to the Berlin Medical Society two cases of cancer of the skin which had been cured by **Fowler's Solution.** 

Di Touton reports a case of sarcoma of the skin which had been cured by Arsenic.

Tongue —Mr Butlin has removed the whole or half the tongue with only one death in forty-six consecutive cases. Nineteen patients were over sixty years of age, and some of them were suffering from organic disease of internal organs. All the operations had been performed by Whitehead's method, and in those cases where the disease was situated wholly at the back of the tongue the lingual artery was ligatured, as it was also in those cases in which it was necessary to remove the submaxillary glands

Many of the cases of death after removal of the tongue are due to septic pneumonia caused by the food and unhealthy discharges in the mouth finding an entrance into the trachea and lungs

M1 Butlin 19 attributes his success to the precautions he takes to prevent the occurrence of this by careful after treatment. He endeavours to keep the wound in the mouth aseptic by frequently dusting it with rodoform, for the first week or ten days after the operation, and frequently washing out the mouth with condy to cleanse it of all fluids which may collect there. To prevent the secretions from the mouth trickling into the air passages, the patient's head is kept low and lying on the side from which the greatest portion of the tongue has been removed. The feeding of the patient is most important. When a portion only of the tongue has been removed, swallowing is not very difficult. Rectal alimentation may be resorted to in the first few hours after operation. Afterwards the patient may be fed through a feeder with a spout, to which three or four inches of india rubber tubing has been attached, lying on the side opposite to that from which the half of the tongue has been removed.

When the whole of the tongue has been removed the patient is fed by the rectum for the first two days, after which fluids may be carefully given by the mouth. If swallowing is very difficult, and if there is any sign of the food finding its way into the trachea, a black bulbous catheter having an india rubber tubing and glass funnel attached to it is introduced into the upper part of the esophagus. If necessary, the throat may be sprayed with a 3 or 4 per cent cocain solution before introducing the tube. Any milk or other food hanging about the upper part of the throat rapidly decomposes and should be watched for

References — "" Proceed Royal Society," vol liv, "Lancet," Feb 3, 1894, "Archiv of Surgery," April, 1894, "Brit Med

Journ," June 9, 1894; 4" Lancet," April 14, 1894, 5" Bit Med Journ," May 19, 1894, 6" Sem Méd," March 13, 1894, 7" Revue de Chii," June, 1894, 8" Lancet," Jan 6, 1894, 9" Annals of Suig," June, p 709; 10" Lancet," Jan 20, 1894, 11" Annals of Suig," Jan p 58, 12" Therap Gaz," Aug and Sept, 1894, 13" Lancet," July 21, 1894, 14 Ibid, Sept 15, 1894, 15" Annals of Suig," June, 1894, 16" Le Méd Mod," May 12, 1894, 17" Annal d'Ocul," May 1894, 15" Munch Med Woch," No 4, 19 Bit Med Jouin," April 14, 1894

Synopsis — (Vol 1894, p 149) Subsequent to operation, Wright uses Arsenic Bromide \$\frac{1}{40}\$ to \$\frac{1}{10}\$ gr doses after meals, and Carbonate of Lime, 5 to 10 gr, doses before meals in Tincture of Calumba For small warty growths, Jennings' Paste is useful, viz \$\frac{1}{8}\$. Cocain, Hydrochlor 2 parts, Caustic Potash 12 parts, Vaseline 6 parts Its action is checked by applying Acetic Acid Marsden's Paste is as follows \$\frac{1}{8}\$. Arsenious Acid 2 parts, Mucilage of Acacia 1 part, mixed in a thick paste, only to be used in cancers under four in square and not applied to more than one square inch at a time Bougard's Paste is used similarly, but on a larger surface \$\frac{1}{8}\$. Wheat Flour, 60 grms, Starch, 60 grms, Arsenic, 1 grm, Cinnabar, 5 grms, Sal Ammoniac 5 grms, Corrosive Sublimate 0 50 cgrm, Solution of Chloride of Zinc at 52° Fh 245 grms Despres prefers Petroleum as a diessing for scirrhous ulcers Pyrogallic Acid \$\frac{1}{5}\$ it o Vaseline \$\frac{1}{5}\$ jacts somewhat like arsenic, if continuously applied for two to seven days, and causes little pain Resorcin and Salicylic Acid are useful at times Pyoktanin and fuchsin are found wanting Areoles recommends Aristol for the symptomatic treatment of cancer of cervix uteri As a deodorant injection the following may be used in uterine cases \$\frac{1}{8}\$ Ac Salicyl gr viij, Sodii Salicyl \$\frac{5}{5}\$ij, Tinc Eucalypt \$\frac{7}{5}\$iy, Aq Dest \$\frac{7}{5}\$iy, M \$Sig\$ —3 tablespoonfuls to be added to a pint of water and used every three or four hours

#### CARBUNCLE.

Synopsis — (Vol 1894, p 154) Rushton Parker advocates removal of the whole mass by knife and sharp spoon, and dressing with Cyanide Gauze

# CATARRH (Post-nasal).

Greville MacDonald, M D.

Catarih, or increased flow of mucus, is frequently spoken of not only by the laity, but also by the less precise in the profession, as though it were a disease in itself, and post-nasal catarih is frequently described as an affection per se, whereas it is but the more troublesome symptom of many diseases of the nose and post-nasal space. I admit that there are cases where it is difficult to detect sufficient objective morbid conditions to account for the excessive flow of mucus, but in every such case, I venture to assert that we are necessarily dealing with more remote disease of which the catarih is but one of many symptoms. Thus any conditions which induce an excessive flow of mucus in the anterior naies will induce more or less post-nasal catarih, more especially when the mischief is situated in the posterior portions of the choanæ. Of such, the most common are polypus,

especially of the cystic variety, and posterior enlargement of the inferior turbinated bodies These are not infrequently overlooked, owing to the difficulties encountered by the mexperienced in obtaining a view of the post-nasal space Yet generally speaking, with posterior enlargement of the inferior turbinated bodies, the velum is more or less paretic, or appears to be so, owing to the weight of the hypertrophies projecting backwards and lying on the upper surface of the soft palate The other frequent cause of post-nasal catarrh is hypertrophy of the pharyngeal tonsil and adenoids, but as these occur for the most part in children, who do not readily manifest or complain of the excessive flow of mucus, the latter symptom assumes less importance than in the adult Finally, it must be remembered that postnasal catarrh is often but a symptom of a general illinitis in its multiplicity of forms, and that a patient often declares that his tiouble is post-nasal catairh, whereas he is really suffering from empyema of the antrum or other accessory cavity The simple form of cataith of the naso-pharyngeal mucous membrane, without sufficient objective disease to account for it, is sometimes to be improved to a great extent by cautious cauterizations of the mucous membrane on the pasterior wall. This is more useful in cases where the secretion is profuse, rather than stagnating from its tenacity or inspissa-In the latter case stimulating nose-washes, such as Ammonium Chloride, gr 5 to the ounce, are extremely useful, and sometimes effect a cure But it may be necessary for the patient to use some such lotion as a daily toilet-duty for the greater part of his life. The nasal douche and the post-nasal syringe ought to be forbidden, in consequence of the 11sk of the fluid used finding its way into the Eustachian tubes

## CHANCRE.

Lorand' describes the mode of treatment by **Heat** which he saw carried out by Wielander at Stockholm. It is based on the observations of W. Boek and of Aubeit, the latter of whom found that chancrous pus heated to 40° C became non-inoculable. Wielander's method is as follows. Water is conducted by two pipes, one carrying hot and the other cold water, to a copper reservoir, and is there kept at temperature of 50° C by means of a gas jet. From the reservoir the water is carried by a jubber pipe to a coil of lead tubing through which it circulates, and then escapes by another jubber pipe. If the water in the reservoir is kept at 50° C it is found that when it reaches the coil it has a temperature of about 41° C, below which it must not be allowed to fall. The ulcers are diessed with pledgets of cotton wool soaked in warm water, any undermined edges being first snipped

off. A layer of moist wool is then applied round the penis, and over this the lead tubing through which the hot water is kept flowing. Another layer of wet wool covers the tubing, and the whole is covered with gutta percha tissue. The dressing is changed three times a day. Lorand saw about twenty cases, in some of which the chancres were both numerous and large, treated in this way. In the majority it was found that after two days' treatment the ulcers were clean and healthy, and then the secretion was no longer inoculable. The patients were then allowed to go home, and were treated as out-patients. The sories usually healed quickly under the application of **Dermatol**. Wielander's statistics showed that among one hundred and eighteen patients who had been treated by his method at an early stage there was no case of bubo.

Worster<sup>2</sup> calls attention to the rapidity with which chances heal under somewhat prolonged spraying with **Peroxide of Hydrogen**, full strength, the vapour of which is projected against the lesion with a cylinder pressure of sixty pounds. Three cases are reported which seemed to corroborate the author's claim for this method. It is one which has long since been recognized as the most efficient means of applying antiseptic solutions, and indeed simple sprays of water alone exert a surprising resolvent effect upon both acute and chronic phlegmons, some of the French observers having claimed for this method (when **Carbolic Acid Solutions** are used) absolutely abortive effects in the treatment of carbonics or boils

Messrs Hallopeau and Biodier<sup>3</sup> conclude that (1,) **Di-iodoform** may be used in simple chancres in the same way as iodofoim it generally cures in eighteen to twenty days; (2,) It is well boine, and produces neither pain nor local irritation, (3, It has the advantage over iodoform that it gives out no odour, provided it is kept away from the light in well stoppered bottles, (4,) It may, like iodofoim, fail to cure in cases of phagedæmic chancre, (5,) It should be applied several times daily the ulcei should be kept covered with absorbent cotton-wool impregnated with the diug, (6,) It gave good results in a case of lymphangitic abscess of the penis, and generally it is applicable in the treatment of the suppurations and ulcers which are benefited by iodoform dressings

REFERENCES — "" Brit Med Jouin", "Theiap Gazette," Maich 15, 1894, "Le Progrès Médical," January 27, 1894

Synopsis — (Vol 1894, p 155) Goldenberg commends Circumcision Castel uses By Carbolic Acid, gr xv, Alcohol (90%), Sijss, dissolve and touch the surface lightly Cavazzani treats soft chance with a mixture of Chloral, 5 parts, Camphor, 3 parts, Glycerin, 25 parts

# CHLOASMA (Uterine).

Symofsis — (Vol 1894, p 157) Bichloride of Mercury, 5 grs to Aq 51, carefully painted over the skin, removes the spots. To restore the tone of the uterus Galvanism may be used, or the insertion of a Soluble Intrauterine Pencil, preferably one containing Iodoform, and repeating the process.

# CHLOROSIS (The Accompaniments of). Frederic C. Coley, M.D.

The most important fact in connection with chlorosis is its action upon the heart The first effect is dilatation. The simplest evidence of this is the displacement of the apex beat, which is, in my experience, hardly ever to be found in the normal position in a case of chlorosis sufficiently advanced to produce symptoms urgent enough to induce the patient to seek for treatment. It may be taken, as a rule, that in a well-marked case of chlorosis the impulse of the heart will be found either in the nipple line, or more commonly external to it quent result of this dilatation, as it affects the left ventricle, is regurgitation through the mitial valve It is not a little curious that, whereas tricuspid regurgitation, as a result of dilatation of the right ventricle, is a commonplace of clinical teaching, mitial regulgitation arising in a similar way is comparatively little recognized. And yet I shall show that this condition is very common in chlorosis, without necessarily adopting Balfour's view that the systolic bruit heard at the so-called pulmonary area is necessarily evidence of functional mitial insufficiency I shall not enter into the vexed question of the causation of this bruit, further than to remark that at any rate low tension in the pulmonary aftery is not the correct explanation For I have repeatedly observed it together with marked accentuation of the pulmonary second sound, which is, of course, evidence of increased pulmonary tension Moreover, I have noticed more than once that when bronchitis happens to be present in a chlorotic patient, the pulmonary bruit is audible as usual, and it is haidly necessary to remark that bronchitis has a tendency to raise the tension in the pulmonary artery

Waiving, however, all discussion as to the real significance of a systolic bruit heard only at the pulmonary area, I think there will be no hesitation in admitting that reguigitation is taking place through the initial valve, when there is a well-marked systolic bruit audible at the apex of the heart, and in the axilla, and at the angle of the scapula But on referring to my notes of four hundred consecutive cases of chlorosis, I found a bruit audible at the apex in two hundred and seventy eight, and at the angle of the scapula also in one hundred and twenty three. It was audible at the pulmonary area in all. That these evidences of mitial insufficiency were generally due to a functional condition was proved, not merely by their great frequency, but by the

fact that in a very large number of the cases the bruits entirely disappeared when the chlorosis was efficiently treated This is so general, in fact, that if the evidences of mitral regurgitation in a case of chlorosis persisted in spite of continued treatment. I should be disposed to believe that I had really to deal with chlorosis complicated by the presence of organic mitral disease caused in the ordinary way by a previous attack of endocarditis This combination of chlorosis with valvular disease is not very uncommon. But when it occurs the chlorosis is rather likely to be overlooked. The appearance of anæmia may be masked to a certain extent by the engoigement of the facial capillaries produced by mitial regulgitation, and the shortness of breath from which the patient suffers is attributed entirely to the valvular defect, although it is really due, at least in part, to the This is an erior of serious practical importance, because anæmia left untreated furnishes just the condition in which the muscular compensation for a valvular defect is most likely to fail, and cause a complete breakdown

On the other hand, in an uncomplicated case of chlorosis, when a well-marked bruit is heard at the apex and at the angle of the scapula, those who are guided by ordinary traditional clinical teaching would be apt to make a mistaken diagnosis of structural mitral insufficiency with a correspondingly grave prognosis

Before I leave the subject of physical signs, there are some facts in connection with the effect of the attitude of the patient which call for notice, all the more because a satisfactory explanation of them is yet wanting

In chlorosis a bruit is often audible at the apex and in the avilla when the patient is lying down, but not in the elect position, except for a few minutes after rising. Such a bruit is often loud. It is often audible when, as a result of treatment, the bruit at the pulmonary area has entirely disappeared. On the other hand, it is quite common to find a bruit at the pulmonary area when none can be heard at the apex in any position of the patient. The bruit at the pulmonary area is not as a rule greatly influenced by posture. And I cannot recollect a case in which a bruit appeared at the angle of the scapula when the patient was lying down, unless it was also to be heard when she was erect.

In chlorotic patients a systolic bruit at the apex (inaudible otherwise) is very apt to be produced by anything which causes the heart's action to be at all exaggerated. Hence a well-marked bruit is often heard at the commencement of the examination which entirely disappears in a few minutes, when the patient's nervousness has a little subsided

In the statistics above given, I have taken note only of those bruits which were audible when the patient was sitting or standing, and when the heart's action was as quiet as possible. My object was to record the minimum of physical signs, so as to understate, rather than overstate, the evidence in favour of my thesis

Leaving now the effect of chlorosis on the heart, we have to consider a few other accompaniments of that disease

Intercostal neuralgia is so common in chlorosis that at one time I supposed it to be universal—at least, to the degree implied by the presence of marked tenderness at the "nerve-points" It is most common at the left side, less at both sides, and comparatively rare at the right side only

Frontal headache is very common. But some people seem to be exempt from headache, so that those causes which produce it in others fail to produce it in them. These fortunate individuals may become extremely anæmic without losing their immunity from headache.

Ulter of the stomach is a common complication, but it would be impossible to furnish statistics of its frequency, because many cases do not present symptoms which could be relied on as absolute proof of its presence. I think there can be no doubt, however, that it is a good practical rule to treat every case as ulcer, where there is pain and frequent vomiting after tood, the pain being relieved when vomiting has occurred. Some have suggested that if the anæmia is treated, the ulcer of the stomach may be left to heal itself without any special care. I have little doubt that this method would be successful in many cases. But it would certainly be risky. And I have seen the symptoms of gastric ulcer appear, while chlorosis was improving under treatment.

Lateral curvature of the spine, in its slighter degrees, at least, is very frequently associated with chlorosis, the muscular weakness produced by anæmia favouring its development. It is very commonly supposed that lateral curvature is rare in patients belonging to the working class. This is a pure delusion. Severe cases of lateral curvature are not very common in any class. Slighter cases (but still quite sufficiently developed to be well worthy of special care) are very common in the classes that become hospital out-patients. But it is only among the well-to-do that the slighter degrees of curvature receive attention from the patient or her friends. It they are discovered at all, it will be in the course of a medical examination instituted on account of other complaints.

When a chlorotic patient complains of backache, that is apt to be taken almost as a matter of course, demanding no special attention

But it will very often be found that it is connected with a certain degree of lateral curvature I do not propose to consider at present those cases where there is a permanent deformity incapable of being rediessed by any manipulation, and presumably implying an actual alteration in the form of some of the vertebiæ But when we find an habitual curvature, which the patient cannot correct for herself, but which can be corrected more or less readily by the hands of the examiner, returning shortly when their support is withdrawn, we have to deal with a condition which is quite important enough to requite special consideration. When it appears before the development of the spine is complete, there is always a possibility that it may lead to structural deformity, although this does not always take place, even when the habitual curvature is entirely neglected. But apart from this danger, such a curvature may be sufficient to produce a deformity which is quite as unsightly, while it is allowed to exist, as any (except the most extreme) distortions connected with actual malformation of the osseous structures And it always involves a sense of weariness and dull aching in the back, although the patient raiely makes any special complaint of this, regarding it probably as only a necessary part of the malaise for which her chlorosis is responsible

In these cases I very rarely find it desnable to recommend any mechanical appliance I believe the "shoulder-straps," which appear in all instrument-makers' shops are worse than useless. I simply teach the patient how to correct the faulty position, and examine her from time to time until I find that the habitual curvature is entirely corrected It is often desirable to enjoin rest in the recumbent position for an hour or more in the middle of the day But this rest should be taken on a comfortable couch, not on a torturing "back-board" still less on the floor, after the manner recommended by some practitioners This method of treatment-merely to teach the patient how to hold heiself upright, and to ascertain by repeated examination that she is actually learning to do so habitually—is very simple in theory But to carry it out successfully requires considerable patience and much attention to detail The results, however, when the patient is intelligent and persevering in seconding our efforts, are entirely satisfactory.

Synopsis — (Vol 1894, pp 32 & 73) Liégeois believes that in the præcordial pains and the différent neuroses of chlorosis, Tincture of Piscidia Erythrina, 20 to 80 drops daily, and continued for a month, may prove advantageous Schultz extols Flowers of Sulphur mixed with Sugar of Milk, the dose being as much as will cover the point of a pen knife thrice daily, it is contra indicated if catarih of the digestive tract be piesent

#### CHOLERA.

In "L'Union Médicale," a summai v is given of the results obtained by the hypodermic injection of Salines in cholera A solution is made, consisting of 5 parts of powdered Chloride of Sodium, 10 of Sulphate of Sodium, and 100 of Water The temperature is 100° F quantity of the injections varies from 1 to 3 pints, and they may be given from three to four times a day In the hospital at Hamburg, Jolasse, has collected the following statistics from one thousand and seventeen cases Cases treated by subcutaneous injections, one hundred and four, deaths ninety-two, cures twelve Cases treated by intravenous injections, one hundred and sixty-seven, deaths one hundred and thirty, recoveries thirty-seven Cases treated by both subcutaneous and intravenous injections, forty-eight, deaths forty-four, recoveries four Cases treated by enteroclysis, forty-two, deaths twelve, recoveries thirty Cases treated by internal treatment. six hundred and six, deaths two hundred and forty-eight, recoveries three hundred and fifty-eight. In addition, there were fifty cases of cholera in which the treatment is not stated.

Moricourt 2 considers that now that the microbic doctrine has introduced into the therapeutics of cholera a number of medicines which, to judge from the articles that have appeared on the subject, have not been attended with results in any way better than those obtained formerly, it is opportune to recall attention to a form of treatment of cholera, which, in his opinion, has been left too much in the shade. He refers to the treatment by **Copper**, which was lauded by Burq at an epoch when the question of microbes was scarcely in vogue. It was found that there was a very small mortality in cholera, typhoid, and the majority of epidemic diseases, among workers in copper, as compared with those working with other metals or engaged in other occupations. In 1849 Burq succeeded in arresting the cramps of cholera by means of copper bars in the majority of cases, and in 1866 **Sulphate of Copper** given internally to patients who had scarcely a particle of pulse, heat, or urine left, effected sixteen cures in eighteen cases

References — "Therap Gazette,' February 15, 1894, -"  $\rm B_{11}t$  Med Journ"

Synopsis — (Vol 1894, p 157) Niedzwiecki uses subcutaneous injections of Quinine R. Quinine Bihydrochlor, gr 30, Sodii Chlorid gr 06, Aq dest. ebull qs, ad gr 100, 2 Lewin syringefuls to be injected on the first day, and I to 2 each day afterwards Lazaraff and Przedborski treat the vomiting with Cocaine R. Cocaini Hydrochlor gr 3, Tinc Menth Pip 5ij, Sig—Gtt 10 half-hourly Blagovidoff checked vomiting and hiccough by Blisters applied along the course of the vagus Ffrench-Mullen employed Hypodermic Injections of Strychnine whenever collapse came

on, giving 5  $\mathfrak{M}$  Liq Strychninæ in an equal quantity of water, he has also used Pilocarpine hypodermically with success. Ammonio-tetrasulphate of Potassium is recommended on theoretical grounds to acidify the intestinal contents.

#### CHOLERA INFANTUM.

Synopsis — (Vol 1894, p 159) Where marked pyrevia with convulsions only are noted, Gross advises rectal irrigation with Cold Water, friction with Alcohol in Iced Water, and perhaps small doses of Antipyrin with a Strict Diet, excluding milk, giving thin gruel, boiled Sugar Water or Tea in small quantities frequently, Salt Water Irrigations once in twelve hours, and 6 Calomel Powders are given, I every two hours. Usually milk can be given again in twenty four hours, but if attack increases in violence the injections must be more frequent and plenty of fresh air obtained Calomel and Salol, or the latter only in late stages, are frequently administered, and during recovery Hydrochloric Acid and Pepsine are substituted. Obstinate chronic cases are relieved by Tannin Injections, and obstinate vomiting usually yields to flushing the stomach once daily with weak Hydrochloric Acid. If child is first seen in a collapsed condition, Warm Irrigation of the Stomach and Rectum, Hot Mustard Baths, and small quantities of stimulants are preferred.

## CHOREA. Allan McLane Hamilton, MD, New York

The influence of rest, which has been so insisted upon in the treatment of this disease, is again urged by those writers upon the therapeutics of the disease under discussion. In an admirable article written by Eskiidge, of Denver, we leain that his mode of treatment consists in putting the patients to bed, and keeping them there, and, in fact, this writer will not assume charge of a case unless the parents or friends of the patient consent to implicitly follow his directions All play, 10mping, or exciting exercise is interdicted. The patient 1eceives as many grains of Antipyrin as he is years old, and the dose is increased one grain each night until all twitching stops. When commenting upon the tolerance of children to this drug he announced that he has given 20 grains of antipyiin three times daily to a child of eight years, but the contrary indication to its use is the rise of temperature which is excessive when he immediately discontinues it and gives chloral hydrate He also employs the ordinary Arsenic Treatment, pushing the diug

A writer in the "Union Médicale," suggests in addition to hygienic and rest treatment a pill of which the following is a prescription —

R Valerianate of Zinc Subnitrate of Bismuth, āā xv grs Extract of Belladonna Sig — Make into forty pills, r or 2 to be given three times a day

If arsenic is employed it is well to use it in the form of aisenite of sodium, in doses of  $\frac{1}{20}$  to  $\frac{1}{20}$  of a grain. Spraying the back with chloride of ethyl is also recommended

Abercrombie<sup>3</sup> favours absolute maction and says that severe attacks demand complete rest in a bed with padded sides, or that the child should be slung in a hammock. He does not even permit the child to feed itself, and he absolutely forbids any exercise of mind or body

REFERENCES — ""Therap Gaz," Feb 13, 1894, 2"L'Union Médicale," May 12, 1894, 3"The Medical Record," p 559, vol 11, 1893

Synopsis - (Vol 1894, p 161) Dr Carter enforces rest in bed and good nourishment, Extract of Malt being a useful adjunct If possible washing daily with soap and waim water, and general Massage for twenty minutes, combined with inunction of Sweet Almond Oil Treatment of constipation, worms, menstrual troubles, etc, Liquor Arsenicalis in gradually increasing doses is the best iemedy, Cod-liver Oil and Malt Extract in chronic cases For sleeplessness a Warm Sponge Bath at night, followed by warm milk food and brandy, in some cases is useful Bromide of Potash with Chloral, 10 to 20 grs, of each, according to age In rheumatic cases Salicylate of Soda is better than Arsenic, and 5 to 10 m of Laudanum may be added to the Bromide and Chloral Draught Hydrobromate of Hyoscine, gr 100, acts well in many cases of insanity and hysteria Chloralamid, Paraldehyde and Sulphonal have all been recommended Chloral has been given in doses sufficient to secure sleep for several days, and thus secure cerebral rest In toxemic delirium, Alcohol must be freely used, not less than 3 to 6 oz in twenty-four hours Warm Wet Sheet-packs and a brisk aperient are excellent adjuvants For paralysis, local injections of Liq Strychniæ in III doses, Faradism and Massage Chronic chorea demands systematic Massage and steady practice of Swedish Exercises Garriga successfully employed Sulphate of Strychnine in initial doses of To gr thrice daily, gradually increased to eight times a day

#### CIRCUMCISION.

Gundium adopts the following method. After removing the skin as far back as the sulcus or cervix of the penis, a dorsal incision is made through the mucous layer of the prepuce to entirely free the glans and tear down the frænum. The mucous layer is trimmed off, leaving a sufficient width to turn back like a cuff and to be stitched to the skin

This stitching should be so neatly done that all raw surfaces are coaptated. The best material for suture is fine catgut. If this is not at hand, fine aseptic silk will do. Having completed this part of the operation, the penis should be thoroughly cleansed with some aseptic solution and completely dired. Now, with a camel's-hair brush, the penis is painted from the meatus almost to the root with the following mixture.—

$\mathbf{R}$	Resin
•	Copal Varnish
	Beeswax

Heat to about 150° to 175° F , stir, mixing the 10doform tholoughly. Allow to cool to 115° to 120° F, when it will be ready for use Apply one coat, and allow it to haiden, then another and another, until the penis is hermetically sealed, leaving the meatus fiee The diessing is completed by wrapping one or two layers of aseptic gauze round the penis and painting with the mixture The patient should be seen in forty-eight hours If the bandage is loose it should be removed. Two or three fiesh coatings with the mixture should be applied Of course the penis should be properly protected by a ring of cotton. The mother is instructed to warm the mixture and apply it with the brush daily until complete creatrization has taken place precaution of testing the heat of the mixture by the finger should always be taken before applying it to the child When this diessing is used there is no inflammation, no discharge, no swelling, no pain, and no ciying and screaming It is aseptic antiseptic, and completely excludes an and all germ life Moreover, it keeps the urine from the wound and from raw or sensitive surfaces

The object of Hagedoin's method of operating for phimosis is to avoid the disfiguration consequent upon simple fissure of the foreskin or ordinally circumcision. For this purpose the piepuce is only slit just sufficiently to permit its retraction over the glans. a circular strip including both epideimis and mucosa is then excised and catgut sutures applied Before the latter are knotted, a roll of iodofoim gauze is placed on the wound, and the knots are then tied over the gauze. The roll comes away in the form of a haid ring in about a week's time

REFERENCES — "Therap Gazette," Feb 15, 1894, 2" Provincial Med Journ."

## CONSTIPATION.

In the case of new-born children regulate the nursing, see that it is done every two or three hours. If the child is not nourished at the breast it may be necessary to feed it from the bottle, and under these circumstances cow's milk should be chosen, which is very rich in cream A small rectal injection of warm water should be given morning and night at the same hour, and if this is unsuccessful in producing a movement a small suppository of Coca Butter may be given, or a few diops of Glycerine and water injected. It is also useful to use general massage over the abdomen with camphorated oil A warm bath should be given every day, and the child should get as much fresh air as possible.

In somewhat older children care should be taken that the diet is regulated and that sweets are avoided, while vegetables, such as beans, prunes, and similar substances, are used. Injections or glycerine suppositories may be used once a day. Before each meal a teaspoonful of a syrup composed as follows may be given —

B Syrup of Rhubarb

Syrup of Gentian

āā Jiv

Or in the morning a teaspoonful of the following prescription — R. Castor Oil | Syrup of Orange Flowers aa 3vj

Or better still Cascara Sagrada cordial, I to 3 teaspoonfuls
In addition abdominal Massage, Baths, and outdoor life are very

In still older children, in addition to regulating the diet, the child should be taught to eat slowly and masticate its food thoroughly, and in the morning to take a teaspoonful of the following mixture —

R Calcined Magnesia Sulphur Cream of Tartai Oil of Anise aa 50

Recourse may also be had to rectal injections and glycerine suppositories, or the following prescription may be given by rectal injection —

R Infusion of Senna Leaves gr lxxv to gr cl Water

Fiv to Fviij

Should there evidently be marked atony of the liver, once or twice a week a powder composed of Calomel and Scammony, of each 4 to 6 grains in a small cachet or in syrup, may be used In still other cases, before the evening meal, a pilule containing  $\frac{1}{0}$  to  $\frac{1}{20}$  grain of Podophyllin may be administered. Where there is insufficient intestinal secretion, Citrate of Magnesium may be given once a week, or a small wineglassful of some purgative immeral water. Should there be inactivity of the intestine, 8 to 12 drops of the following prescription may be used—

B. Tincture of Nux Vomica Maxx Tincture of Belladonna

Fl Ex of Cascara Sagrada āā 513

Hydrotherapy, Exercise, Massage, and Electricity with Faradization of the abdominal walls and the use of the continuous electric current are also valuable therapeutic aids. Should there be evidences of intestinal obstruction, with stericoraceous vomiting, with constipation, meteorism, and a cylindrical tumour showing obstruction the child should have a hot bath, after this copious intestinal

rrigation of hot Boric-acid Solution, to which is added I or 2 teaspoonfuls of Glycerine, and if the obstruction does not seem to be severe, 2 to 6 drachms of Castor Oil A liquid diet consisting chiefly of milk flavoured with coffee, is to be used <sup>1</sup>

A good combination for constipation is **Cascara Sagrada** and **Asafœtida**, but the dose being so variable in different individuals, is sometimes hard to regulate until a few trial doses have been given -

The following is a useful formula for an alkaline aperient 3.

B. Sodii Bicarbonatis gr x Pulveris Rhei gr iv Tincturæ Zingiberis ill x Ammonii Carbonatis gr ij Aquæ Menthæ Piperitæ ad 5j

Misce et fiat mistura 2 tablespoonfuls three times a day

REFERENCES — "Therap (azette," August, 1894, 2" Medical Age," Nov 25, 1893, 3" Practitioner," March, 1894

Synopsis — (Vol 1894, p 169) bor spasmodic constipation, Belladonna and Hyoscyamus are often helpful, together with Olive Oil Injections In children, Simon advises R. Tract Cascarillæ, Rher, Gentianæ, Cinnamomi, Calumbæ, ää 2 parts, Nux Vom 1 part Sig —10 to 20 drops twice daily Shoemaker advocates the Continuous Current

# CONYULSIONS. J. Madison Taylor, M.D., Philadelphia

I Simon' divides the treatment of infantile convulsions into four stages (1,) In the first place the digestive canal should be emptied, as in four-fifths of the cases the convulsions are due to indigestion, or obstinate constipation, a waim enema should be given with Oil, Glycerine, or Salt, (2,) To calm the nervous system, Ether or a few drops of Chloroform should be given by inhalation, after the enema has acted a clyster containing Chloral and Musk should be given (8 grains of chloial to an infant of three to six months, II grains to an infant of nine months, and 15 grains to one of a year, with 20 drops of tincture of musk) in three or four paits, to ensure its retention and absorption In addition, a mixture containing small doses of Bromide of Potassium and Tincture of Musk should be given every hour or every half-hour, (3,) In obstinate cases, cutaneous revulsives should be used, such as Mustard Baths (from one to three) or a Blister to the back of the neck, left on for three hours, (4,) In seeking the cause of the convulsions, if indigestion, constipation, and enteritis be absent, search should be made for burns and other sources of cutaneous iriitation, foleign body in the nose or ear, herma, undescended testicle, or retention of urine, but especially 

dition, the treatment prescribed should be **Counter-irritation** over the kidneys, **Hot-air Baths**, **Leeches** to the mastoid process, or **Yenesection.** When the attack has passed off the infant should not be considered out of danger until it has passed water freely

Schumann<sup>2</sup> after discussing the intestinal causes leading to eclampsia and convulsions in children, dwells on our inability to render much active and immediate assistance. Anæsthetics, purgatives, etc., are dealt with, and the author then describes how he has lately in the case of several children resorted to abdominal Massage, which led to instantaneous relief. With or without an anæsthetic, according to the nature of the case, the child's abdomen should be rubbed for several minutes, when the passage of flatus and a thin stool will show the success of the treatment. The history should be enquired into flist, and, when there is a probability of the presence of peritoneal irritation, the massage may be contra-indicated.

REFERENCES - "Bit Med Jouin", 2 Ibid

Synopsis — (Vol 1894, p 172) Removal of visceral irritation, Cold Douches to the head, or a protracted stream directed against the fontanelle When cerebral congestion is present Leeches are applied to the mastoid processes, stimulating applications to the lower limbs, or Compression of the Carotids Bromide of Sodium with 7 to 15 grs Chloral Hydrate for young children, or 51 to 15 for older children Prestly uses hypodermic injections of Chloral Hydrate, 5 grs, for an infant two years of age

## CONVULSIONS (Puerperal).

Synopsis — (Vol 1894, p 172) If albumen be present, an exclusive Milk Diet must be insisted upon If a convulsion sets in and the patient be vigorous and cyanotic, sixteen ounces of blood may be taken, and Chloral and Milk given as soon as possible

#### CORYZA

The following directions: are given for the treatment of acute coryza

- (1,) Confinement to the room
- (2,) Washing of the nose, three times daily, either by snuffing up the medicament, or by imigation with infusion of **Eucalyptus Leaves**, or simply a glass of water as hot as can be borne, to which is added a soupspoonful of **Carbolic Lotion**, I to 20
- (3,) Every two hours, after having blown the nose, a pinch of the following prescription —

R Chlorhydrate of Cocaine		Boric Acid	4
Menthol	20	Powder of Marshmallow	IO
Salıcylıc Acıd	50		

I part

- (4,) If the frontal pain is extremely severe, take three or four times a day a pill made up according to the following prescription —
- By Crystal Nitrate of Aconitine gr  $\frac{1}{60}$  | Bromhydrate of Quinine gr  $\frac{1}{60}$  | Licorice Powder  $\frac{1}{60}$  | Make ten pills
- (5,) When there is illitation of the skin, smear the masal orifice and the upper lip with —

R Vaseline 10 parts | Boric Acid Snuffs for acute coryza may be compounded as follows<sup>2</sup> —

R Cocainæ Hydrochloratis gr jss Acid Boracis 5j Mentholis gr ijss Pulv Amyli 5jss Acid Salicylatis gr viij

Mix and reduce to a fine powder Every two hours a pinch of the snuff may be taken, after blowing the nose

O13 --

B Bismuthi Salicylatis 5ss | Cocainæ Hydiochloratis gr 3 Camphoræ Pulverisatæ 5j | Make a fine powder to be used as a snuff

The following simple iemedy is reported as very efficacious. A ripe **Lemon** is taken and some of its juice squeezed into the palm of the hand. The juice is then forcibly inhaled up the nostrils. Two or three such inhalations are said to cure an ordinary cold.

REFERENCES — "Therap Gaz," Feb 15, 1894, 2" Med Piess," Feb 28, 1894, 3" Practitionei," Jan 1894, 4" Med Piess," Jan 1894

Synopsis — (Vol 1894, p 173) Auld gives a mixture of Gelsemium fluid extract, 10 drops to 3 ounces of water, a teaspoonful being taken every fifteen minutes Seiss drops into each nostril 3 to 5 drops of 5% Cocaine Solution, and then sprays them out with an antiseptic, eg B Listerine, 5iv, Ac Boilci, gr 20, Aq Rosæ, 5iv, M Sig — Use in an atomizer, or after establishing nasal respiration by the foregoing steps use B Menthol, gr 11, Camphor, gr v, Albolene (or Paroleine), 5j, M Sig — Use in an atomiser, give at bed-time  $\frac{1}{12}$  to  $\frac{1}{2}$  gr Morphia Capitan uses a Snuff B Salol, gr 15, Salicylic Acid, gr 3, Tannin, gr  $\frac{1}{12}$ , Boracic Ac (Powder), gr 60 This produces eczema of nostrils if used too long, unless a little Talc or powdered Boracic Acid be added, or the Salol is reduced to 4— $\frac{1}{12}$  grs Another snuff formula is B Morphinæ Hydrochlor, gr 11, Pulveris Acaciæ, 31, Bismuthi Subnitratis, 3v1, M et ft pulv Not more than a quarter of this quantity to be used in twenty-four hours

## **CRETINISM.** (See also "Idiocy")

Synopsis — (Vol 1894, p 174) Carmichael effected improvement by injecting 10  $\mathfrak{M}$  Thyroid Extract twice a week for six weeks, then reduced it to 10  $\mathfrak{M}$  weekly, and finally to 10  $\mathfrak{M}$  every two weeks. He then gave half a lobe of the raw gland internally, increasing to one lobe weekly

#### CROUP.

Kohn<sup>r</sup> highly recommends the internal use of **Calomel** in true croup

To a child under two and a half years of gramme of pure calomel is given hourly sleeping and waking, for each year above two and a half years add of gramme of calomel to the hourly dose. A child of five years, would, therefore, take or gramme of calomel every hour. The calomel must be absolutely pure and undeteriorated, it should be given without the admixture of sugar of milk or of any sugar whatever, it may be administered either floating on a teaspoonful of water, or, if the child refuses this because he knows it to be medicine, it may be given in milk, entirely unnoticed by the patient

After 1 or 2 grammes of calomel have been given, a change in the laryngeal breathing sound should be noticed. The treatment should and can be instituted at the earliest possible moment after the diagnosis is made

Severe diarrhea has also been very rare. Three, four, or even five movements a day under the calomel therapy should be advantageous in this disease, provided the patient take nourishment, the sepsis is, to a certain degree, mitigated by the free action of the bowels.

Should the diarihoda assume a severe or alarming character, the dose of calomel may be diminished, or the intervals between doses prolonged, or a **Starch Injection**, with or without a little **Paregoric**, may be given, and if the laryngeal obstruction seems to be ressening, the calomel should not be stopped altogether under any circumstances

The action of calomel in cloup, given as above described, bears out the old belief in actual experience. Under its use the stridor, the aphonia, the cough, in short, all the symptoms, slowly abate, showing that the membrane is gradually loosening its hold and becoming innocuous

The advantages of calomel over sublimate are self-evident, the former is mild, non-irritating, can be taken for the necessary length of time without any other effect than a passing diarrhæa, perhaps, while the sublimate is a pronounced irritant poison, which, taken in frequent doses, will cause pronounced gastro-intestinal irritation, necessitating an interruption in the treatment at a critical period

Discussing the differential diagnosis of membranous croup and diphtheria, Di Dicky² emphasises the necessity of determining the direction in which the membrane advances. In diphtheria it advances upwards, beginning with a very small area, usually the tonsils, finally reaching the nostrils, and death results as a result of systemic infection. In croup it passes downwards, invading trachea and bronchi, and unless arrested in its progress the patient dies from asphyria. Again, in croup the exudate is upon the mucous membrane, does not reach down into the

submucosa, and when removed (which can be easily done) there is no raw bleeding suiface left, neither has the Klebs-Loffler bacillus ever been found, since croup is not contagious organism morphologically similiar may be found, but it will not produce the ptomaines that would identify it as the microbe of diphthena

Di Dicky has never been able, after most careful examination. to find a single case in which albumen was not present in the unine of a diphtheria patient. It is absent, however, in the sufferers from croup

His advice in treating croup is to maintain a warm room, the air saturated with moisture, an emetic of Turpeth Mineral, repeated whenever the respiration becomes embarrassed, if the bowels are constipated, a sufficient amount of Calomel to move them thoroughly, ice to the throat, either in a rubber bag or bladder, if thirst exists, pellets of ice internally, Quinine to the production of decided cinchonism, which is to be maintained, a sufficient amount of Hydrate of Chloral to allay uritation of the air passages, along with decided doses of Belladonna (R. Chloral Hydrat, gr 1, Tinct Belladonna, gtt v--x. given every three hours until four or five doses are taken), inhalation of steam, medicated or not as may suit the peculiar belief of the individual practitioner, all to be supplemented by the administration of a suitable amount of easily digested food

Intubation and Tracheotomy save 40 per cent in the case of the former, 35 per cent in the case of the latter operation

Di Dicky maintains that the use of Chloral (though apparently contra-indicated) gives relief by allaying spasms and quieting the nervous system Peroxide of Hydrogen, Lime Water and Bicarbonate of Soda are mentioned as solvents of the membrane, but greater importance is attached to the Hot Spray which is employed as the vehicle for these applications

REFERENCES - "Therap Gaz," Feb 15, 1894, "Med Age," Jan 10, 1894

## CROUP (Spasmodic).

Synopsis—(Vol 1894, p 174) Gillette prescribes B. Dover's Powder, gr 1v, Cherry Laurel-water, 51, Simple Syrup, 51, a coffeespoonful every hour If this fails, a rectal injection of Chloral Hydrate, 8 gis, Infusion of Valerian, 2 ounces, may be given and repeated if necessary In obstinate cases the following solution may be sprayed by an atomizer into the mouth B. Hydrochlorate of Cocaine, gr 188, Bromide of Potassium, gr 2v, Bitter-almond Water, 5188, Distilled Water, 591 Watkins administers Tincture of Lodine 1871 doses every fifteen minutes at first administers Tincture of Iodine, \frac{1}{2} m doses every fifteen minutes at first, and then every two or three hours

#### CYSTITIS.

Vigneron has found intravesical injections of Antipyrin an excellent remedy for pain in the bladder in many cases of cystitis. It is important that the bladder should not be in a condition of over distention. Before washing out the viscus an injection of to to 20 grammes of a I in 25 solution of antipyrin is made into it, this is left in the bladder for about ten minutes, so as to allow time for the drug to be absorbed. When the bladder is distended the practitioner should, in order not to prolong the operation, content himself with injecting (after washing out), from 60 to 120 grammes or more of a I in 100 or I in 200 solution of antipyrin, and leaving it in the bladder. Vigneron states that the drug is quite harmless in the bladder even when the use of it is prolonged for months. When left in the bladder the remedy checks the painful contractions, it also acts as an antiseptic

Wittzack<sup>2</sup> employs the following formula in the treatment of tuber cular cystitis, holding that the **Lactate of Cocaine** greatly lessens or entirely relieves the pain incident to the employment of the lactic acid —

R Lactate of Cocaine 2 parts | Lact Acid and Dist Water 10 parts

After having emptied and washed out the bladder, about 15 drops of the solution are applied to the ulcerated spot

Comes uses **Chloride of Ammonium** in catarrhal conditions of the bladder. He employs a capsuleful of pulverized purified ammonium chloride taken three or four times in the twenty-four hours, preferably when the stomach is somewhat empty, each dose to be followed immediately by a half goblet or a goblet of pure cold water

The following are some of the conditions in which the drug has been given faithful trial, with most satisfactory results in every instance

Cystitis dependent upon stone in the bladder, stricture, hypertrophy of the prostate, deposits of urates, etc, gonorihœa (male and female)

Cystic militation from utenne disease of menstrual disorders, malamal effects, masturbation, early pregnancy, simple methritis (matter) in newly-mained women

Cystic and ienal sequelæ of la grippe

In the majority of cases it was surprising to note the rapidity with which the urine was cleared of bladder mucus, blood-corpuscles, puscorpuscles, urates, phosphates, etc, the distressing symptoms disappearing therewith, and in no case did the salt occasion any gastric or other disturbance when taken as ordered

No explanation of the modus operands of the semedy is offered

Only practical experience is here given, with the sincere hope of aiding those whose opportunities have been limited in the treatment of the diseases of the genito-uninary organs

Fill the capsules only as needed for administration, as the salt dissolves the gelatin in a short time

Dana 1 recommends the use of **Thuja Occidentalis Tincture** in uncomplicated cystitis. It is given in 5-diop doses every three hours, and great relief is reported from its use

For chronic cystitis5 --

B. Liquoris Potassæ mxxx | Infusi Buchu āā 5j Infusi Uvæ Ursi

Misce et fiat mistura 4 tablespoonfuls four times daily.

REFERENCE — "But Med Jouin', "Therap Gaz," August, 1894, "Ibid, February 15, 1894, "Chicago Med Times", 5" Practioner," November, 1893

### DERMATITIS HERPETIFORMIS.

T Colcott Fox, MB

Rosenthal, presented a patient whose condition had been greatly ameliorated by **Antipyrine** internally, and locally by **Tar Baths** and ointments such as **Salicylic, Yaseline**, etc. The patient exhibited the four chief characteristics of the disease, viz, polymorphism of eruption, intense itching, long duration with successive outbursts, and good general health

Neuberger at the Dermatological Section of the Nuremberg Congress stated that he had obtained very favourable results by the use of Arsenic internally, and the application of an 80 per cent Salicylic Paste, but particularly from rubbings with tar made in warm baths

Lustgarten and Allen,<sup>2</sup> ascribed good results in a case to Pilocarpine

References — Berlin Derm Soc , 2 New York Derm Soc , 1894

#### DIABETES.

Synopsis—(Vol 1894, p 179) Phosphoric Acid quenches the thirst best In diabetes resulting from excessive sugar formation, Hailey advises Opium, Morphine, Codeine, Hyoscyamus, Cocaine, Bromide of Ammonium and other narcotics Croton Chloral may be given B. Croton Chloral, gr ½, Opii, gr j, Ext Aloes Barb, gr ½, Ext Gentianæ, gr jss, M Sig—r pill thrice daily In cases due to nerve depression or pancreatic disease, Ext. Nuc Vom, gr ½, thrice daily with a Croton Chloral combination is useful, Strychnine, Quinine, Mineral Acids—specially Phosphoric and Nitro-muriatic—are of service Antipyrin and Peroxide of Hydrogen have been of benefit Aleurone Bread and Soya Bread are useful substitutes for ordinary bread Mackenzie and Wood speak well of Pancreaticus and Zymin in treating diabetes mellitus

Syzygium Jambolanum is disparaged by Leoni, except as palliative Piathowsky tried Benzosol or Benzoyl-guaiacol in a daily dose under 4 grammes with some good results Dujardin-Beaumetz orders a glass of Vichy Water immediately before breakfast and dinner, dissolving in it one of the following R Lithium Caib, Jijss, divide in pulv 30 and add 2 drops of Fowler's solution to each powder. For excessive polyuria he gives Antipyrin, gr 15, in Black Coffee after each meal. The body is to be sponged each morning with waim water, followed by active friction After each meal rinse the mouth with the following mixture R Ac Borac, Juj. Ac Carbol, gr xv, Thymol, gr iij, Water Oij, M. Or R Tincture of Anise, Jijss, Essence of Peppermint, gtt x, Alcohol (90%), Oj. Tincture of Cochineal to colour, qs. Mix this with equal parts of water Nicolaier gives Salol, 30 gr doses thrice daily, if no albuminuma exists Bufalini finds that Thymol increases the tolerance of albuminous food For excessive thirst the following may be of service. R Pilocarp Nitrat, gr iij, Sp Tenuioris, Jj., Aq ad, Jss. Sig.—Four or five drops on the tongue twice or thrice a day

#### DIARRHŒA.

Lauder Brunton considers that morning diarrhæa is due to an initiable condition of the sigmoid flexure, or even of the rectum, which may vary from chronic congestion to actual ulceration. In the great majority of cases there is tenderness on pressure over the sigmoid which may feel hard and contracted like a rope under the finger. In its treatment it is important to abstain from all liquids after five, six, or seven o'clock at night, or even earlier in the day. Bismuth and Soda with Carminatives assist in lessening the irritability. In obstinate cases Massage is the most useful remedy. The local application of ointments, e.g., Bismuth by means of an ointment introducer is often a useful accessory measure. In many cases the use of an exclusive milk diet is followed by the best results.

That form of diarrhea coming on while taking food or immediately after is answered by Brunton to be due to increased excitability of the nervous system of the intestine, the impulse given to the stomach causing increased peristals along the entire canal. For this condition **Liq Arsenicalis**, i or 2 drops immediately before the meal, is advised, or **Bismuth** may be substituted with advantage, e.g., liq bismuthi et ammonic citiatis 5ss—j

The following table is given and may serve as a useful basis for diet in malignant disease, simple ulceration or stricture of the lower bowel, also for cases of gastric ulcer—

#### TABLE.

Swallow nothing that has not been either passed through a hair sieve, or has been so thoroughly masticated in the mouth that it is of the consistence of cream, and would readily pass completely through a hair sieve without leaving any remainder

To Avoid-

All Skins—Bones—Strings, and Stones

Where these things cannot be removed the article of diet must be rejected

Skins of Fruit, eg, of grapes, peaches, apricots, gooseberries, marmalade Reject currants, raisins

Skins of Vegetables, eg, tomatoes, potatoes Reject peas, beans

Skins of Fish of all kinds Reject sardines, whitebait,

Skins of Fowl —Fowl, game, larks, quails

Bones of Fish, eg, sardines, herrings, trout Reject whitebait

Strings in Fruit —Oranges, peaches, apples, pears, bananas, tamarinds, nangoes

Strings in Vegetables, eg, asparagus, cabbage, cauliflower Reject carrots, and turnips unless mashed and passed through a sieve

Strings in Meat -Stringy fibres of beef, sinews in larks, quails, fowl and game

Stones or Seeds of Vegetables, eg, tomatoes Avoid peas and beans, unless carefully chewed

Stones or Seeds in all kinds of Fiuit.—Grapes Reject nuts, almonds.

strawberries, raspberries, currants

Strawberries, raspberries, or currants may be pulped either alone of with sugar of cream, and may be passed through a fine sieve. The juice thus obtained may be taken either alone or with farinaceous food

May Have-

Milk with soda water or lime water, or even alone, if sipped and eaten with rusk or biscuit, and well mixed in the mouth.

Bread if stale, new bread to be avoided. All bread that breaks down under the finger and thumb, into crumbs, is old enough. Bread that under the finger makes a stiff dough must be avoided.

Rusk, or biscuit, or cracker, or bread and butter (not ciust), provided it be well chewed in the mouth, so that it is of the consistence of cream before it is swallowed. Eggs in any form except haid-boiled or fried.

Generally the patient may have anything (fiuit, vegetables, meat, fish, or game) that has been passed through a sieve

All kinds of corn-flour, tapioca, sago, rice, if well boiled and well chewed Macaroni, vermicelli, spaghetti, sassagna, Italian paste (These may be boiled in stock which may be made with vegetables, if the vegetables are strained first. Essence of celery in quarter to one drop as flavouring)

Cocoa, freely

Tea (China), infused for short time.

Coffee, if it cause no distress

Butter in moderation

Cream cheese, in small quantity, and well mixed with bread in the mouth, or grated parmesan, but must not have any other kind of cheese (No Stilton Cheese)

Gravy from any kind of meat

Savoury jellies(if there are no solids in them).

Sponge biscuits

Madeira cake (plain, no currants, no peel)

Grated meat, tongue, etc

Toast, if it be well masticated

(No hot buttered toast)
Yorkshire (batter) pudding, with gravy, if well masticated
Bread or toast in soups

Honey or golden syrup

The syrup of jam or marmalade with the seeds or skins strained out carefully, fruit jellies, eg, apple jelly, quince jelly, guava jelly, with bread or bread and butter, or with any kind of corn-flower or arrow-root, or macaroni, or any kind of farinaceous food allowed

Di K Hugel<sup>2</sup> of Wuizburg has recently carried out a large number of observations on the value of the white Guava plant. (Psidium pyriferum) in diaithea and choleia nostias The astringent virtues of the plant are recognized both in Java and in the Brazils. where the natives use it as a household remedy. The preparation employed by Di Hugel was an infusion made from 5 paits of the leaves and 80 parts of boiling water, with the addition of 20 parts of syrup Of this a tablespoonful was ordered hourly or every two hours, according to the gravity of the case For children, of course, a smaller dose was prescribed. Sometimes, instead of the infusion the leaves in powder were ordered, the quantity in each powder being from 8 to 15 grains. After using this remedy in several hundred cases of infantile cholera. Dr Hugel became convinced of its superiority over all ordinary remedies for acute gastro-enteritis After three or four doses had been given the most severe cases of diarrhea. and vomiting showed a decided improvement. In five cases of cholera nostras in the adult, the voiniting, diaithea, cramps, and diowsiness rapidly disappeared after the administration of \( \frac{1}{2} \) a grain of Calomel, followed by a few doses of guava infusion. In the chionic diairhea of phthisis and in the diarihea of typhoid fever this remedy also proved useful, also in dyspepsia, and in chronic gastric and intestinal catairh In all Di Hugel's experience he nevel met with any case in which guava produced any disagreeable effects. He has not himself had an opportunity of trying it in true cholera, but he understands that it is used in that disease by the natives of Java

Dr Bourget³ presents his studies upon Salacetol as a remedy for diarrhæa. The drug is a combination of salicylic acid and acetol, and possesses all the chemical and physiological properties which make salol an intestinal disinfectant of the first rank. It is a white crystalline powder, insoluble in cold water, is first decomposed in the alkaline fluids of the small intestine, the salicylic acid accomplishes the asepsis and the acetol is rapidly eliminated as acetone. This remedy contains 75 per cent of salicylic acid, against the 60 per cent of salol. It apparently eliminates the salicylic acid more rapidly in a solution of castor oil, because the latter provokes a more

abundant secretion of the intestinal fluids. He has treated a large number of infectious diarrheas, and on only one occasion was he obliged to resort to laudanum. The dose is 30 to 45 grains in one ounce of castor-oil, taken in the morning, fasting. Raiely is it necessary to be repeated on the following day, although no inconvenience results should it be repeated. Under this dosage the sulphur compounds (indican, cresyl-sulphates, skatosyl sulphate) are diminished and reach their normal (one-tenth of the simple sulphate) within three or four days, showing that disinfection is rapid

For chronic diarrhœa4 the following is recommended —

Re Salicin 511 | Syrup q s Make into twenty pills, and give I pill every four hours

For the green diarrhoea5 of infants, the following -

B. Acidi Lactici Diluti | miv | Syrupi Simplicis | Tincturæ Limonis | mj | Aquæ | āā fij | Misce | A teaspoonful thrice daily after suckling

REFERENCES— Biunton, "Quaiterly Med Jouin," January, 1894, 2" Lancet," September 8, 1894, 3" Med Record," December 9, 1893, 4" Jouin de Med," May 6, 1894, 5" Pract," April, 1894

Synopsis — (Vol 1894, p 182) Aislau uses the Faradic Current in all forms except dysentery and ulcerative entero-colitis Lojkin employs Lactic Acid in 2% solution for diarrhœa accompanying acute dyspepsia, and gives half a tumblerful twice a day Dantec and Bonamy uses Chloroform Water for tropical diarrhœa, the same remedy also is associated with antiseptic irrigation of the colon for dysentery Bonamy uses as a clyster in dysentery Boronsies Sublimate, graph Water, Siving Half to be used at night and half in the morning Mencke employs Boronsies Boronsies, signature accompanying the description of the colon for dysentery Boronsies, signature and half in the morning Mencke employs Boronsies, signature and half in the morning Mencke employs Boronsies, signature and Boronsies, signature and Rhubarb, signature and Signature and Rhubarb, with Milk Diet. Boronsies, Sodium Bicarbonate, and Rhubarb, with Milk Diet. Boronsies Granting Signature and Rhubarb, signature and Signature for chronic diarrhæa Boronsies, Signature for chronic diarrhæa Boronsies for chronsies for chronic diarrhæa Boronsies for chronic diarrhæa Boronsies for chronic diarr

## DIARRHŒA (Infantile).

Synopsis—(Vol 1894, p 184) Lactic Acid in bacillary and infectious forms Mineral Acids, I to 5 drops, twenty minutes after feeding, Bismuth, 20 grs every two hours, are given to infants at times, Opium to relieve restlessness and pain and control watery evacuations. In functional non-inflammatory forms Belladonna Extract three or four times a day with Kreasote or some other antiseptic, also Galvanism or the Faradic Current, 3 to 10 milliampère strength. Hydro-therapeutic measures and local warmth. Hydrochloric Acid and Salo! are used by Mense, and of the latter gr 5 to 10 were given during the first year, gr 15 to 30 for older children. Miller advises Enteroclysis for summer diarrhéea. Hot Water as a flushing medium is given freely to infants in severe cases by McConnell. Talley washes out stomach and intestines with pure water or

Boracic or Thymol Solution, then giving Calomel, I to 2 grs daily, or Salol, I to 4 gls in fractional doses. Arsenic,  $\frac{1}{2\sqrt{10}}$  to  $\frac{1}{1\sqrt{0}}$  gr or Fowler's Solution,  $\frac{1}{4}$  to I drop, is indicated by constant tendency to relaxed bowels. Corrosive Sublimate,  $\frac{1}{10\sqrt{0}}$  to  $\frac{1}{1\sqrt{0}}$  gr t 1 d in mucous diarrhea Podophyllin, gr  $\frac{1}{2\sqrt{0}}$  to  $\frac{1}{10\sqrt{0}}$  see horis in serous forms. Chapin finds the addition of Hydrogen Peroxide to milk is a harmless and effectual preservative method, I to 2% is used

**DIPHTHERIA.** (See also special article, "The Diphtheria and Tetanus Antitoxines")

Levy and Knopt have employed locally a combination of **Papayotin** and **Carbolic Acid**, especially as the latter does not prevent, though it retaids, the digestive power of the former. Their idea was that the papayotin would exert its solvent action on the membrane and so enable the acid to penetrate. Again, the carbolic acid would destroy the bacteria, while the papayotin would weaken the specific poison

A solution is made up as follows -

B Papayotin (Gehe) 10 parts | Distilled Water 100 parts | Carbolic Acid (pur liq ) 5 parts | M Sig —Shake before using,

During the first two hours it was painted on the membrane every ten minutes, subsequently at two-hour intervals, and as far as possible also during the night. The improvement was nearly always immediate and striking. Cases of diphtheria with thick, false membrane and slight infiltration of the subjacent tissue responded better to treatment than those with much infiltration and thin membrane.

In conclusion, the authors state that they have been experimenting with the non-poisonous **Thymol**, in 2 per cent solution, as a substitute for the carbolic acid, and have obtained similar results

Hamilton in cases of pharyngeal diphthena advises Biniodide of Mercury, as follows —

R Mercury Biniodide gr 11 | Sugar 51

M Sig —Place from 5 to 10 grains in powder every hour or two on the tongue, not giving any water for a few minutes afterwards

The author advises that if laiyngeal or tracheo-laiyngeal symptoms develop, a quart of unslaked lime should be placed in a vessel of appropriate size and half an ounce of turpentine poured on it, then enough boiling water to completely cover the lime, the vessel should be placed under a cotton sheet, thrown also over the head of the nurse and affected child. A cloud of vapour will be emitted for ten minutes at each sitting, which can be repeated hourly, if required, for the paroxysms of difficult breathing.

REFERENCES — "Therap Gaz," Dec 15, 1893. Hold, Aug 15, 1894

Synopsis — (Vol 1894, p 190) B. Pilocarpin, gr 1, Sp Vin Gall, 51v, Sylup Aurant, 51, Aq q s ad 511 Sig -r teaspoonful every two hours after a strong purge has been used (Heischfeld) Chloride of Iron, 4 parts to I of Water, painted on the throat twice daily, sprinkling also with lime water and using ice pellets and an ice bandage about the throat (Hubner and Rosenthal) Simon applies & Salicylic Acid, gi xv, Infusion of Eucalyptus, Glycerine, aā žiss, Alcohol, q s to make a solution, following its application by painting with Iron Perchloride and Glycerine, equal parts, and irrigating mouth and nose with Boric Acid Solution of Carbolic Acid, I to 100 solution, Nitrate of Silver Stick is applied to any fissures of lips or gums Kraus uses Iodum Tribromatum (20 drops to 300 grains of water) for a gargle, watching for rodism Jacobi considers peroxide of hydrogen too irritating for local use Smith considers this irritation is lessened by adding Sodium Bicarbonate, eg R Squibb's Perovide of Hydrogen, 511 B Sodii Bicaib gr x, Aq dest 511 B Aq dest 511 r teaspoonful of each to be mixed in the hand atomizer just before using it Fischer uses Pyoktanin in 10 % solution, locally administering a teaspoonful of Sod Bicarb, in a tablespoonful of water five minutes before each application Schwarz treats suspicious cases at once with Sodium-Sozoiodol, gr 45, Sublimated Sulphur, gr 180 This is blown into mouth and nose every three hours in children under three years five years old a 50% mixture is given, and above this pure Sodium-Sozoiodol is given. At the same time a tablespoonful of Pot Chlorat, 15 to 22 gis to 6 fl oz water, is given, and to support the heart a decoction of Cinchona with Cognac or Malaga Wine is used, for swelling of glands munction of Mercurial Ointment In bad forms with retention of urine, large doses of Calomel were used Howatson adopts regular brushing with Tinc Ferr Perchlor Quin Sulph Glycerine in solution, and internally B. Liq Hydrarg Perchlor, 5iv, Pot Iodid, gr xv, Tinc Nuc Vom, Il xxxii, Glycerin, 5j, Aq Anethi ad 5iv Sig —2 teaspoonfuls every two and a half hours night and day Lescure brushes on Chromic Acid, 2 grms, to Distilled Water, 5 grms, removing any excess, and following with applications of Tannic Acid, 6 grms to 30 grms Glycerine. Internally R Tinct Eucalyptus, 3 to 10 grms, Mucilage of Acacia, 90 grms, Sylup of Orange, 30 grms, M Sig — To be taken during twenty-four hours in tablespoonful doses, or B Tinc Nuc Vom, 10 g1ms, Ext Cinchon, 5 g1ms, Malaga Wine, 200 g1ms, Svr Aurant, 100 gims Sig —3 dessertspoonfuls per day In adults R Quin Sulph, gr y, Liq Hydiaig Peichl, M x, Tinc Auiant, M x, Aq ad 51. M, Sig — Shake the bottle and give 2 tablespoonfuls thrice daily Bonain advises Essence of Turpentine, 150 to 500 gr to be evaporated daily and water to be vaporised under a tent until the child is cured. In-B Sod Salicyl, 50, Pot Iodid, 50, Aq dest, ternally Kersch uses 200 0, Syr, 30, M A tablespoonful every hour Flahaut applies crude Petroleum every hour or two hours

DROPSY (See "Ascites")

#### DYSENTERY.

Dr Schwarze' observed the success following the treatment of chronic diarrhœa and dysentery by the empiric practitioners of Constantinople, whom he found were in the habit of using chiefly Roses, the rind of the Poinegranate Root, and Myrobalanus—the latter being

the fruit of a tree indigenous to India He employs a combination of myrobalanus, pelletierin, extract graminis, extract grandti and acada, the first mentioned has, however, to be very carefully selected and its purging principles removed by a complicated process. He reports great success attending this treatment in the hands of his colleagues at home and abroad as well as his own

Di Summers washes out the bowel with a strong solution of pepsin (% ounce to 6 ounces of warm water) every three hours, which act, he declares, "clears off the mucous surface effectually". He next employs a soothing injection, such as Laudanum and Starch, as hot as can be borne. He says that after two or three washings and injections the patient experiences great relief, and healthy action is at once set up, when, if constitutional conditions receive due consideration, rapid healing follows

Rudneff<sup>3</sup> uses **Lysol** enemata A I per cent aqueous solution is injected three times a day (a pint at a time) into the bowel until all blood disappears from the stools Subsidence of pain and general improvement were said to result on the second or third day after the adoption of this method

A useful injection in dysentery4 is said to be the following .-

References — "Therap Gaz,' Dec 15, 1893, 2" Med Age," May 10, 1894, 3" Meditzinskoie Obozienie," No 20, 1893, 4" Therap Gaz," Aug 15, 1894

Synopsis—(Vol 1894, p 197) Daland treats the malarial form in adults with Quinine, gr 60 m n, and R. Ammon Chlor, gr 5, Pulv Ipecac, gr 5, Tr Opii, gtt 10 to 15 Sig—To be repeated every two hours Morphine is added for severe pain, and where debility is marked Ammon Carb, 5-gr doses, every two hours day and night is used. For endemic forms in Nicaragua, Quinine, gr 10 to 20, is given three times daily, and to allay gastric irritability Bismuth, gr 15, or Tannin, gr 5, is given instead of the above ammonium and ipecac mixture. In some cases Nitrate of Silver, gr ½ to ½, in pill 3tis hor, or Plumb Acet, gr 2 or 3, 3tis hor is useful. Ammonium Carbonate, gr 10, with either of the red or white wines every three hours is a better stimulant than spirits. Liebersohn employed enemata of Tannin and Boracic Acid at 36°C every three hours. Lojkin advocates Lactic Acid, ½ a tumblerful of 2% solution twice daily. Rovacs has used Quinine Irrigations (1 in 1000)

#### DYSMENORRHŒA.

Schwarze' emphasises the undesirability of narcotics He attaches importance to the use of the gymnastic, mechanical treatment of the disease, introduced by Thure-Brandt It is applicable to non-inflam-

matory cases The movements which Thuie-Biandt iecommends are (1,) Percussion of the loins, (2,) Rolling of the thigh, (3,) With the patient in a standing position, the knees are bent and stretched against her opposition, (4,) Rolling of the feet, (5,) Separating the knees and leaning backwards. The movements are performed at home, if possible daily, at any rate daily for one week before menstruation. Favourable results follow this treatment. Schwarze asserts that patients who dance or ride horseback some days before menstruation have much less pain, or none at all

But in well-developed, non-anæmic women, who suffer violently from dysmenoiihœa, special gymnastics are not to the purpose. Here, in non-inflammatory cases, **Yiburnum Prunifolium** gives brilliant results, which are not to be obtained with any other remedy, except morphine

Vibutium prunifolium, fluid extract, in teaspoonful doses thrice daily for from five to seven days before, and continued during the menstruation, gives excellent results without unpleasant atter-effects. It is not so successful if an inflammatory condition is associated with this symptom. He has noticed, also, its value in airesting threatened abortion, even after the dilatation of the os uterr has been established. In many cases local massage is of great value, but it should only be employed in those who are not erotic. The use of a uterine sound before menstruation is frequently followed by relief, and of still more value is dilatation of the entire cervical and uterine canal. Electricity—galvanic current, aluminium negative pole in the uterus, large positive pole upon the abdomen, current of from fifty to sixty milliampères—has been of service in many cases. Castration is not indicated from the standpoint of the gynæcologist alone, but only after consultation with the neurologist and alienist.

Bergey <sup>2</sup> prefers **Santonin** over all other drugs as an emmenagogue, and to relieve painful menstruation He gives 10-grain doses at night on the first appearance of the flow

REFERENCES — "Therapeutische Monatshefte," 1894, Heft 5, S 191, "The Therapist"

Synopsis — (Vol 1894, p 199) Oliver prescribes a large dose of Bromide at night for a week midway between the periods, and Antipyrin, gr 5, hourly until 6 doses are taken when there are indications of the period approaching. If pains depend upon gastro-intestinal conditions, a mixture containing Chloride or Hypophosphite of Calcium is given in the intermenstrual period. Smith advises attention to habitual constipation, improvement of pelvic circulation by Hot Douches and Boro-Glyceride Tampons, Kapid Dilatation, Curetting, with or without the use of intra-uterine tampon, Pessaries, with or without intra-uterine stem, external application of Galvanic Current, or the same with one pole in vagina against uterus and the other in abdomen or sacrum, as most im-

portant he uses a mild Galvanic Current to the interior of the uterus by means of the ordinary uterine sound, rapid dilatation, application of a mild caustic to interior of uterus and diamage either with iodoform gauze or with vulcanite or glass stem or tube to remain some time. Handfield-Jones would remove inflammatory conditions by Leeching, Saline Aperients, application of Carbolic Acid or Iodised Phenol and Hot Douching; if no disease exist but simple tenderness, Rapid Dilatation is curative. Berger gave Santonine, 10-grain dose at night on the first indication of the period, and found it always relieved uterine colic. Forez irrigates the large intestine with Hot Water to which Alkaline Salts may be added, O'Sullivan successfully employed Hyoscyamine, grain  $\frac{1}{40}$ , increased to  $\frac{1}{10}$ 

### DYSPEPSIA. W. Gilman Thompson

W. Gilman Thompson, M.D., New York

The chief interest in the treatment of dyspepsia has during the past year centred in the use of antiseptic, or, rather, aseptic and antifermentative remedies, among which **Saloi** still holds the foremost rank for treatment of intestinal dyspepsia, and **Salicin** for purely gastric indigestion. These remedies control, not only abnormal fermentation of saccharine and amylaceous foods, but also that of animal foods, such as milk. In the intestinal indigestion with flatulence and discomfort, which is apt to accompany the prolonged use of an exclusive milk diet, eg, in enteric fever, saloi given in 5-grain doses every two or three hours is particularly beneficial

Sympson<sup>r</sup> publishes an interesting paper on the value of salol in intestinal dyspepsia and other disorders, in which he gives the results of both experimental and clinical observation

For the Ingleby Lectures of the current year (1894), Saundby° chose the topic of "Common Forms of Dyspepsia in Women," and he advocates a very simple and rational treatment. The majority of cases are associated with anæmia and constipation—For the former symptom, he gives the time-honoured Sulphate of Iron pill (Blaud's), combined with Sulphate of Magnesium, or else the tincture of the Chloride of Iron, and for constipation, Strychnine, with Magnesium or Sodium Sulphate Waters. Of the latter, the Rubinat water is the least disagreeable, and most active—It is best given very hot. There is nothing at all new in this method, but the author's presentation of the subject is comprehensive and practical.

For atonic gastialgia, he advocates the following prescription of the British General Hospital Pharmacopæia —

Ft Ht. Sig —To be taken thrice daily, an hour after meals.

This is a very bitter draught, the taste of which might better be dis-

guised by some essential oil or other flavour. The forms of treatment for dyspepsia in women, advocated in Saundby's lectures, include a discussion of test, massage, isolation, climate, diet, exercise, electricity, gastric lavage, and drugs

Papoid is an all-round solvent and digestant, which, like the pancieatic juice, affects both starchy and proteid foods

Page<sup>3</sup> finds that it dissolves abnormal mucous secretions, which play so important a *rôle* in exciting mal-fermentation and functional dyspepsia. Its action is continued in the intestine. This agent is strongly endoised by Stucky and others. The dose is  $r\frac{1}{2}$  to 3 grains terdic after meals. It is prepared in tablet form

Bismuth Subgallate is a comparatively new salt of bismuth recommended by Austin Flint and others for feimentative dyspepsia. The dose is the same with the older salts of bismuth, and 10 to 20 grains may be given after taking food, but larger doses, 30 to 40 grains, will be required for diarrhæa. It is obtainable in convenient tablets, 5 grains to each tablet.

Djambœ is a new astringent and stomachic recommended by Hugel4 as a tonic and stimulant to the gastric mucous membrane. The preparations are an infusion, powder, and fluid extract of leaves of the djambœ or psidium pyriferum, a plant used extensively by the Javanese, who make an astringent tea of it for the cure of diarihæa. He declares that it is a perfectly innocuous remedy in doses even up to an ounce of the powder. The drug was given with benefit to patients of the Wurzburg University Polyclinic, the following preparations being employed —

- (r,) R Infus Djambæ (r—16) 80 gme (2¾ fl 3) Syrup 20 gme (4 fl. 3) Tea-to tablespoonful every one to two hours.
- (3.) B Fluid Ext'Djambœ ' 30 gme (1 fl ₹)
  20 drops to 1 teaspoonful every two hours

Much has been claimed of late for the alleged antiseptic and antifermentative value of oxidizing agents of the **Hydrogen Peroxide** type, when taken internally The writer of this article recently reported a series of experiments upon these much-advertised nostrums, which led to the conclusions (1,) That when used in full strength of 15 volumes per cent. of hydrogen peroxide, they are liable to prove injurious by destruction of the gastric or cosophageal mucous membrane, (2,) Given in medicinal doses by the mouth, their only benefit, if any, consists in local action in the alimentary canal by possibly preventing

mal-fermentation, (3,) Ozone is of no value whatever to the tissues, whether inhaled or drunk in fluid preparations, and it may be exceedingly harmful

Creasote still finds favour as a remedy for gastric and intestinal dyspepsia, especially in cases of pulmonary tuberculosis, where the swallowing of sputum excites constant gastric catairh, or when the alimentary canal shares in the general lack of nutrition of the body, and dyspepsia, with hypersecretion of mucus, flatulence and eructations, prevails. The later observations on the use of this drug demonstrate that nothing is to be gained by pushing its exhibition beyond the reasonable dosage of 4 or 5 minims three or four times a day. The larger doses, formerly given, are apt to defeat their own end, by causing further derangement of digestion

Tordeus<sup>6</sup> advocates the following formula for dyspeptic vomiting in children —

Good beechwood creasote only should be used, and for intestinal dyspepsia the best plan of administration is that suggested by W H. Flint, three or four years ago, to give the drug in keratin coated pills, which are not dissolved until they reach the strongly alkaline medium of the intestinal contents

Guaiacol and Guaiacol Carbonate are other remedies of this class which have recently been reported favourably by F C Simpson<sup>7</sup> and others for gastric and intestinal dyspepsia, but in other hands they have proved much less useful than salol

Potassium Bichromate in doses of 5 milligrammes to 1 ctg. ( $\frac{1}{6}$  to  $\frac{1}{2}$  gr) tid, between meals, is recommended by Fraser<sup>8</sup> for the cure of obstinate dyspepsia with pain and emess. He used it successfully as an analgesic and antiseptic in eighteen bad cases

T H. Webster9 also speaks favourably of it.

**Duboisin** is a powerful remedy recently recommended by Cantu, to and employed as an anodyne against gastro-intestinal pains, and to counteract hyperacidity of the stomach. The latter it reduces to a remarkable extent. He has used the hydrochlorate in hypodermic dosage of  $\frac{1}{10}$  to  $\frac{2}{5}$  milligramme ( $\frac{1}{640}$  to  $\frac{1}{160}$  grain), or by the mouth,  $\frac{1}{5}$  to  $\frac{7}{10}$  milligramme ( $\frac{1}{320}$  to  $\frac{7}{640}$  grain). He regards it as superior to attopine in these cases. The greatest care should always be exercised in its use

Recently the writer a called attention to the value of Banana Flour as an excellent form of starchy fruit food for dyspeptics, who are unable

to digest amylaceous substances without the occurrence of flatulency, pyrosis, etc. Further trial of this food justifies the original favourable report. It possesses the advantage that, with thorough ripening, the star ch of the banana is largely converted into dextrin and an easily assimilable sugar. Most fruits when died form a gummy or pasty mass, like the fig and raisin, but the banana may be converted into a fine nutritious flour which will keep almost as well as wheaten flour, and which may be cooked in similar ways

Somatose is a new soluble predigested meat preparation presented in the form of an odourless granular powder, almost tasteless, which contains upwards of 90 per cent of albumoses, ready for immediate absorption. It is a useful form of nitrogenous food for bad cases of dyspepsia, especially among the aged, for, like Mosquera's beef meal, and similar preparations, it may be advantageously employed to concentrate other forms of nutriment, such as milk, soup, or broth, cocoa, or coffee, in all which it dissolves. It has also proved a serviceable infant food when existing gastric dyspepsia makes the full digestion of other forms of meat, or even of milk, temporarily impossible

REFERENCES—"Sympson, "Plactitioner," 1894, "Robeit Saundby, "Common foims of Dyspepsia in Women," Ingleby Lectures, 1894, "R C M. Page, "New York Polyclinic," Dec 1893, 'K Hugel, "Munch med Woch," 1894, xlı, 569, 5W Gilman Thompson, Hydrogen peroxide, and other ozonizing agents, "New York Med Recoid," Mar 3, 1894, 'Tordeus, "Il Raccoglitore Med," 1894, "F C Simpson, "Amei Therapist," Aug 1894, p 40, T R Flasei, "Tiansact Internat, Med Congless," 1894, 'T H Webster, "Dynamical Therapeutics," 1894, "Cantu, "Tiansact Internat Med Congless," 1894, "W Gilman Thompson, "Dietetic and Hygienic Gazette," Feb 1892, p 19

Symopsis — (Vol 1894, pp 13, 24, and 200) B Ol Creasoti Pur,  $m_{\rm XIJ}$ , Sp Tenuioris,  $g_{\rm IJSS}$ , Ammon Benzoat,  $g_{\rm IJ}$ , Glycer Pur,  $g_{\rm YJ}$ , Infus. Caryophylli ad  $g_{\rm YJ}$ , M  $g_{\rm YJ}$ , part in  $g_{\rm IV}$  aq two or three times daily between meals for acid eructation, distension and heartburn Chloralose has cured dyspepsia in a neurasthenic Oleum Succini, 10 to 20 drop doses in flatulent dyspepsia

## EAR (Methodical Diagnosis of Diseases of).

J Dundas Grant, MD, FRC.S

In the "Medical Annual" for 1894, a somewhat detailed account was given of the methods of investigating the organs of hearing with casual reference to the various diseases whose presence was recognisable by the different methods described. We shall in this paper, assume that the reader is familiar with the use of the tests for hearing, and the instruments required for the examination of the auditory organs.

An endeavour will be made to methodise as briefly as possible the means of arriving at a diagnosis of whatever disease may be present, and though all such semi-schematic methods must be founded on a more or less artificial system of classification, the writer has striven as far as possible, to classify the diseases according to the most prominent marks of distinction or similarity between them. In the first place the grouping is founded upon such subjective symptoms as it is in the power of every practitioner to analyse without having any great familiarity with aural manipulation, and adding, for the purposes of confirmation, a description of the physical changes upon which necessarily the skilled otologist must rely

We may mention as before, that the cardinal symptoms of disease of the organs of hearing are defective hearing, pain in or round the ear, discharge from the ear, tinnitus aurium, vertigo, or visible alterations in the organs

We shall in the first place, then, classify the diseases for diagnostic purposes according to these various cardinal symptoms.

If the patient complains of -

DEFECTIVE HEARING (see below)

PAIN IN OR AROUND THE EAR (see page 202)

DISCHARGE FROM THE EAR (see page 206),

TINNITUS (see page 210).

VERTIGO (see page 211)

VISIBLE ABNORMALITIES ABOUT THE EAR (see page 214).

# THERE IS DEFECTIVE HEARING, WITHOUT PAIN OR DISCHARGE

We have first to determine whether there is obstructive or nervous deafness, or a combination of the two

- A Bone conduction being normal or increased, Rinné's test giving a negative, and Weber's, a positive result; there is OBSTRUCTIVE DEAFNESS (In such cases, there is better hearing for high than for low tones—Galton's whistle—also for the watch as compared with the voice, and, in chronic bilateral cases of severity, better hearing in the midst of a noise)
- (a,) The deafness has occurred SUDDENLY, there is probably *impaction of cerumen*, which is readily detectable by the speculum. This is often a complication of chronic external office (vide 209), of exostosis of the meatus (vide 216), or of other forms of ear disease.

- (b,) The deafness has come on ACUTELY, there is probably acute catarrh of the Eustachian tube. On inspection, the membrane is much indrawn, on inflation the Eustachian tube is heard (by auscultation) to be narrowed, and hearing is immensely improved.
- (c,) The deafness is of OLD STANDING, then (apart from obvious occlusion of the external meatus)
  - I There being no history of any considerable former discharge
- (1.) If it began with a distinct acute catairh of naso-phaivingeal oligin, and the accompanying tinnitus, if any, is slight, inconstant, and late in appearance, there is the exudative form of chronic catarrh of the middle ear On inspection, the membrane is indrawn and of abnormal opacity or thickening There are signs of chronic nasopharyngeal catarrh Inflation gives evidence of some degree, at least, of narrowing of the Eustachian tube, and produces more or less improvement in hearing. If the improvement on inflation disappears at once on the patient swallowing, there is probably relaxation of the membrane in whole or in part. This can only be ascertained by comparing the appearance before and after inflation. or under the action of Siegel's suction-speculum Depressed parts are made to bulge, and the thin film of membrane, fitting closely over the inner ossicles and allowing their outlines to be plainly recognisable, bulges out away from them and renders them invisible
- (2,) If, on the other hand, the deafness has come on very insidiously, with prominent tinnitus aurium from the commencement, the affection is probably the sclerotic form of chronic catarrh of the middle ear. On inspection, the dium may show very little sign of change, but may be somewhat more opaque, or inegularly thickened, and in parts abnormally thinned. There is not necessarily any evidence of nasopharyngeal disease. Inflation reveals little or no evidence of narrowing of the tube, and produces no notable improvement in hearing. (This is readily intelligible when we remember that the essential element in the disease is a fixation of the stapes in the fenestra ovalis.) Further evidence of the identity of the affection is afforded by the relative insensibility of the membrane when touched with a probe, and of the interior of the tympanum when inflated
- II. There is a history of a former considerable purulent discharge. The deafness is probably due to perforations or cicatrices resulting from suppurative inflammation of the middle ear.
- (1,) If, on auscultation or inflation, there is heard the unmistakable "perforation sound," there is a *persistent perforation*. On inspection, the perforation is usually recognisable as having white cicatricial

or epidermised edges, parts of which may be adherent to the inner wall of the tympanum

- (2,) If there is no perforation sound, there is a cicatrised membrane On inspection, there may be seen a larger or smaller sharply defined portion of the membrane thinned and covering the area obviously occupied before by a perforation (vide p 206). The cicatrix may be thin, baggy, and so tightly drawn into the tympanum that the appearance is indistinguishable from that of an open perforation, being in fact, like the mouth of a pocket. It is distinguished by the absence of "perforation sound" and by the changes seen under the action of Siegel's speculum. The "pocket" may be drawn completely out, indicating non-adherent cicatrix, it may be drawn out in part, say its circumference, the centre remaining behind, as it were at the bottom of a funnel, partially adherent cicatrix. Lastly, it may all remain behind, simply becoming congested, completely adherent cicatrix
  - B Bone-conduction being diminished or extinct, Rinné's test giving a positive and Weber's a negative result, there is deafness from disease of the sound perceiving apparatus—"NERVE DEAFNESS" (In such cases there is usually better hearing for low than for high-pitched tones, worse hearing in the midst of a noise, and better hearing for speech than for the watch-tick)
  - (a,) The nerve deafness has occurred SUDDENLY.
  - I Without injuly of exposure to noise or explosion
- (1,) It has come on with intense vertigo, tinnitus, vomiting, coldness and almost collapse in a patient with no pievious eai-disease. There is hamorrhagic effusion into the labyrinth (vide p 212), constituting what is known as labyrinthine vertigo (Menière's disease), and leaving protiacted and often persistent deafness by which it has to be distinguished from a "bilious attack," which it resembles
- (2,) If the deafness is associated with cross-paralysis, it may be ascribed to hæmoiihage in the pons, if with hemianæsthesia, in the posterior part of the *internal capsule*, and if with hemiplegia, in the opposite *temporo-sphenoidal lobe*.
- (3,) If the deafness is unaccompanied by any of the above-mentioned symptoms and signs, and has been induced by a mental shock, it is neurotic or hysterical deafness.
- II It has resulted from an injury to the head, or exposure to noise or explosion.
- (1,) Forcible syringing, loud sudden noises, or explosions or blows on the head may cause deafness attributable to concussion of the labyrinth.

- (2,) If there has been a severe blow or fall with the usual signs of fracture of the base of the skull, especially if accompanied by facial paralysis, there is a *fracture of the capsule of the labyrinth* 
  - (b,) The nerve deafness has had an ACUTE onset
- I If there is no pyrevia, no marked congestion or anæmia The nerve deafness develops within a few hours to a high degree without marked febrile re-action, there is probably then *syphilitic disease of the labyrinth*, acquired or hereditary. Other signs will usually be found, including in hereditary cases the remains of interstitial keratitis, the typical teeth and the peculiar physiognomy. This is the most common form of acute nerve deafness.
- II There being signs of cerebral congestion, the occurrence of slight, though recognisable nerve deafness, with tinnitus, giddiness, and nausea, along with flushing of the face and ear, the deafness passing off with the other evidences of cerebral congestion, would indicate acute congestion of the labyrinth
- III If there is pallor with signs of cerebral anæmia, slight nerve deafness with tinnitus, giddiness, nausea and pallor relieved by lying down, it is due to acute anæmia of the labyrinth
  - IV. There being great febrile and cerebral distuibance.
- (1,) If not pieceded by decided meningitis there is primary inflummation of the labyrinth, the deafness persisting when the cerebral symptoms have passed off
- a This in very rare cases is simple
- β More commonly it is *infectious*, being brought about by microbic invasion during the exanthemata, diphtheria, mumps, theumatic or other fevers
- (2,) If it has been pieceded by decided symptoms of meningitis, there is meningitic inflammation of the auditory nerve in its intra-cianial or labyrinthine portion. If the sixth nerve is simultaneously affected the intra cranial portion is affected
- (3,) If it has supervened on concussion or hæmorrhage from an injury, there is traumatic inflammation of the auditory nerve or labyrinth.
- (c,) The nerve deafness has GRADUALLY DEVFLOPED during a considerable period of time.
  - I There is no evidence of intra-cianial disease
- (1,) The patient has been habitually exposed to noises, such as hammering, firing of guns, machinery, escape of steam, etc., the affection is paresis from chronic concussion as typified in "boiler makers' deafness"
- (2,) The nerve deafness is developed after repeated losses of blood or other causes of anæmia, local or general It is worse in the elect

than in the recumbent posture, and is accompanied by humming tinnitus, vertigo, faintness, and the general signs of anæmia; there is chronic anæmia of the labyrinth.

- (3,) The nerve deafness has developed in a plethotic subject, and that (and the accompanying tinnitus) is woise in the recumbent posture and after meals, or it accompanies symptoms of cerebral or tympanic congestion, there is chronic congestion of the labyrinth. If venous, there is usually a rushing tinnitus, and if arterial a pulsating tinnitus, diminished by compression of the vertebral arteries.
- (4,) The deafness varies with the patient's nervous condition, coming on with palloi, nausea, vertigo and giddiness, lapidly passing off, the symptoms are those of neuro-vascular paralysis of the auditory narrie
- (5,) The nerve deafness has developed in a previously healthy ear, the opposite one being the seat of old ear disease, median or internal; it is sympathetic paralysis of the auditory nerve
- (6,) The nerve deafness has developed during the exhibition of quinine or salicylic compounds continued for a considerable time, there is toxic nerve deafness
- II. There is involvement of other cranial nerves besides the auditory
  - (1,) The facial nerve is completely paralysed
- α There being a history of long standing discharge; there is disease of the auditory and facial nerves in the petrous bone, probably tubercular β With no history of discharge, there is disease involving the intracranial course of the auditory and facial nerves (tumour, gumma, pachy-meningitis, etc.)
- (2,) The sixth nerve being paralysed, a history of convulsions, etc, would point to basal meningitis
- (3,) The spinal accessory nerve being paralysed, this would indicate disease on the posterior aspect of the apex of the petrous bone, probably tumous or pachy-meningitis
  - III. There are other evidences of disease of the nervous centres
- (1,) There is hemiplegia of the same side simultaneous in onset with the deafness. This should indicate disease in the opposite temporo-sphenoidal lobe or the strands leading to it
- (2,) There is deafness mainly or entirely manifested by a failure to understand spoken words (word deafness). This, in a right-handed subject, would indicate disease of the left superior temporo-sphenoidal convolution.
- (3,) There is hemi-anæsthesia of the opposite side; this (Goweis) would indicate disease of the posterior part of the internal capsule

- (4,) There is cross paralysis, it would indicate disease in the pons
- (5,) The nerve deafness has developed in a subject of locomotor ataxia, there is tabetic degeneration of the auditory nerve or nuclei
  - C There being diminution of bone conduction with a "negative" Rinné, there is a COMBINATION OF OBSTRUCTIVE AND NERVE DEAFNESS
  - (a,) There is no history of discharge -
- I If there is a history of chronic catarrh of the middle ear of old standing (vide page 198), in which the hearing has of late become rapidly very much worse —
- (r,) If the patient hears better with a speaking-trumpet than without it, there is probably secondary disease of the cochlea. This would be still more certain if there is loss of hearing for high-pitched sounds, and if a former "paracusis Willisii" has disappeared
- (2,) If the patient hears better without a speaking-trumpet than with 1t, there is probably ankylosis of the stapes
- II. If there is a history of primary nerve deafness, (signs of hereditary syphilis, etc.) a "negative" result of Rinné's test would indicate a concomitant or super-added catarrh of the middle ear
- (b,) If there is a history of former considerable discharge, there is probably exhausted suppurative disease of the labyrinth, secondary to suppurative inflammat on of the middle ear.

Notes —The degree of diminution of bone conduction is greater in cases of disease of the labyunth, or auditory nerve, than of the more central portions of the auditory track

In cases of disease of the intra-cramal portion of the eighth nerve (from meningitis or other causes), Gradenigo has noted a marked increase in the rapidity of fatigue of the auditory nerve

In unilateral nerve-deafness it is common for Rinné's test to give an appaiently "negative" result on the affected side, owing to the tuning-fork on the mastoid being heard by the other ear. This is very apt to mislead, but it can usually be checked by Weber's test giving a "negative" result

# THE PATIENT COMPLAINS OF PAIN IN OR NEAR THE EAR

## A The pain is centied IN THE EAR

(a,) If there is no defect of hearing, no sign of local inflaimmation, and the pain is intermittent, the pain is OTALGIA This may be reflex or local.

- (1,) If there is evidence of disease of the teeth, tongue, or throat, the pain is a reflex otalgia.
- (2,) If all reflex causes can be excluded, it is neuralgia of the tympanic plexus, which may, or may not, be part of a neuralgia of more extensive distribution
- (b,) If there is a moderate disturbance of hearing, but this has not come on at the very commencement of the attack of pain, we may assume that the disease is situated not in the tympanum itself, but IN THE EXTERNAL MEATUS
- (1,) If the meatus is uniformly reddened and narrowed, the introduction of the speculum causes a slight pain, and, later, there is a scanty discharge from the middle walls, the case is one of diffuse external otitis
- (2,) If there is a round sessile swelling in one or more localised spots on the wall or floor of the meatus, and the introduction of the speculum causes excruciating pain, we may diagnose acute circumscribed external otitis, or in other words furuncle of the meatus. The pain here is often of a paroxysmal character, and usually reaches its utmost intensity in the earlier hours of the night
- (3,) If on inspection the membrane is seen to be congested, or dull, the features being obscured, and the lining of the meatus comparatively normal with much less defect of hearing than the change in the appearance of the membrane would seem to suggest, there is acute myringitis. Inflation causes pain and makes the hearing rather woise
- (c,) If there is from the very commencement of the pain a high degree of deafness the disease may be localised as in the tympanum itself
- I When the constitutional disturbance is slight and pyrexia moderate
- (1,) If gentle inflation gives some relief and improves the hearing to a slight degree, there is acute catarrh of the middle ear. On inspection, the membrane may be seen to be congested round the maigin and down the line of the manubrium, or it may present a coppery tint and brilliance, or it may be traversed by a horizontal black line showing the height of the collection of fluid inside
- (2,) If the constitutional disturbance is great, the pyrexia considerable, and the symptoms almost suggestive of meningitis, if on inspection there is violent redness of the membrane with bulging, possibly a yellowish tint in the most prominent part, the disease is acute suppurative inflammation of the middle ear, and there is later seen a discharge of muco-pus followed generally by relief (vide page

- 206). In *influenzal* and *erysipelatous* cases this relief is not so usual as in others.
  - B The PAIN IS SITUATED IN THE MASTOID REGION
- (a,) If there is swelling over the mastoid with redness and tenderness, then
- (1,) If this swelling is quite circumscribed and can be moved about over the surface of the gland, there is *inflammation of the mastoid lymphatic gland*
- (2,) If there is a swelling which shelves very gradually down to the bone, is quite immovable, and later becomes somewhat boggy, we have to deal with *mastoid periostitis*. This is occasionally *primary* but usually *secondary* to disease in the interior of the mastoid, or in the external meatus
- (3,) If there is a dense fluctuating swelling extending upwards and projecting the auricle outwards and downwards from the side of the head, we have to deal with *sub-periosteal mastord abscess*. On incision this may be found to be entirely localised, or much more often to communicate by means of a fistula with the meatus, the tympanum, mastorid cavities, the lateral sinus, or the posterior or middle cranial fossa
- (4,) If there is—a very rare condition—an obvious swelling of the bone itself as compared with the same region on the opposite side, we have to deal with *cortical mastoiditis*, that is to say, with suppuration in one of the superficial cells of the mastoid process, such as follows influenza and other forms of acute suppuration of the middle ear
- (b,) If there is no marked local swelling, but a deep throbbing, boring pain, disturbance of health, and sometimes symptoms approaching to typhoid, we have probably to deal with internal mastoiditis
- (1,) If this follows an acute suppuration in the middle ear, especially of influenzal origin, there is almost certainly suppuration in a masterial cell
- (2,) If it is a sequel to chionic suppuration, it is almost certainly due to *suppuration in the antrum*, and often associated with the formation of epidermic or cholesteatomous masses in the interior of the temporal bone
- (c,) Intermittent pain in the mastoid region without constitutional or local signs of inflammation, though generally subsequent to old mastoid disease, is *mastoid neuralgia* 
  - C. The PAIN IS MORE OR LESS GENERALISED over the head, and there are marked febrile or cerebial disturbances.

(a,) These being associated with diseases of an ACUTE form

205

- (1,) If relief follows evacuation of pus from the tympanum by incision or removal of other obstructions, followed if necessary by washing out of the tympanum through the Eustachian tube (and without this last proceeding the diagnosis of more serious disease should not be made), the disease is retention of pus due to acute suppuration of the middle ear)
- (2,) If not thus relieved, disease in the mastoid should be looked for (cortical mastoidits in acute suppurative outs, antral suppuration in the chionic form), and should not be excluded from the diagnosis without operative exploration if the symptoms get more severe, or if after forty-eight hours of dry cold applications (Leiter's coil or ice-bag) they do not diminish
- (3,) If exploration of the mastoid does not reveal the presence of suppuration such as would account for the symptoms, and violent general headache, delirium, vomiting, constipation, and, later, retraction of the neck ensue, the disease is acute meningitis
- (4,) If there are repeated rigors, well-marked oscillations of the temperature, possibly diarrhea, and, later, metastatic formations of pus, the disease is pyamia
- (b,) The patient being the subject of CHRONIC supputative inflammation of the middle ear
  - I. The temperature being continuously high.
- (1,) If relief follows evacuation of the pus by the methods abovementioned, there has been simple retention of pus
- (2,) In the absence of such relief the *mastord antrum* should be explored by operation, as a probable seat of suppuration or of the formation of cholesteatoma
- (3,) If there is comparatively localised headache with some degree of tenderness on pressure or percussion, there is probably an *extradural abscess*, which can only be ascertained by trephining
- (4,) If the headache is of an acute diffused character, with vomiting and early and continuous delirium, etc, we have to deal with meningitis.
  - II The temperature showing marked oscillations .
- (1,) If there is an initial rigor not necessarily repeated, we must suspect thrombo-phlebitis of the lateral sinus. This would be confirmed by the following signs. The presence of a hardness along the line of the internal jugular, distension of the retinal veins, tenderness on pressure behind the mastoid process (Bennett), and, on exposure of the lateral sinus by trephining, evidence of a clot or collection of pus in that vessel. Sometimes pus may be seen on exposure of the mastoid foramen, in the course of explorating operations.

- (2,) If the 11gors are repeated, and especially if metastatic suppuration takes place, we have to deal with pyania
- III. If the temperature after an initial rise is normal or subnormal, there is a severe localised headache and considerable mental dulness with constipation, slow pulse and loss of flesh; there is in all probability an encephalic abscess. The temporo-sphenoidal lobe should then be explored by trephining and the introduction of a trocar and cannula with or without an aspirator. If no abscess is found, the cerebellum should be exposed without further delay, and explored in the same manner, more especially if there was considerable bulging of the dura mater through the trephine hole.

NB—For the confirmation of the diagnosis of these formidable sources of pain, the reader is referred to the systematic text books in the study of which the above scheme will be found a useful guide

It must be remembered that these results of chronic ear-diseases may occur in various combinations with corresponding modification of symptoms, such sequence of events as the following being not unusual —suppurative inflammation of the middle ear (say from scarlet fever), perforation, extension to the mastoid antrum, epidermisation of the mucous membrane, formation of a cholesteatoma in the antrum, erosion through the posterior wall of that cavity into the sigmoid grove, periphlebitis and thrombosis of the sinus, infection of the thrombus, purulent breaking-down of the clot, dissemination of pathogenic emboli by the veins, metastatic abscesses and death from pyæmia. Again, suppuration in the "attic" frequently leads to erosion of the tegmen tympani, extra-dural abscess, lepto-meningitis, and death

## THERE IS A DISCHARGE FROM THE EAR.

Discharges may be divided into four groups—a purulent, a sticky oozing, a more or less hæmorrhagic, and a sanious.

## A The discharge is PURULENT.

- (a,) If it is at present, or has previously been copious with considerable deafness from the commencement of the symptoms, we may assume that the discharge is from the MIDDLE EAR, especially if it contains unmistakable mucus, and the presence of a perforation in the membrane is revealed by inspection and auscultation.
- I. If then it is of recent occurrence, and has been preceded by acute pain, it is acute suppurative inflammation of the middle ear. If the suppuration has come on without being preceded by marked pain, it is probably tuberculous in origin, and search should be made for the tubercle bacillus and other signs of that disease.

- II. If the discharge is of old standing it is one of the forms of chronic suppurative inflammation of the middle ear. We have then to find out the reason of its chronicity, as follows —
- (1,) If antiseptic cleansing has not been practised the chionicity may be due to simple stagnation and saprophytic putrefaction.
- (2,) If antiseptic cleansing has been practised but has failed to effect a cessation of the discharge (and of the feetor, should such be present), we must look for one or other of the following conditions —
- a. Before or after syringing the ear, if we see a smooth, shiny, translucent body of soft consistency occupying the lumen of the meatus we have to deal with a polypus. This probably originates from the interior of the tympanic cavity, and grows through an aperture in the membrane, revealed by auscultation, and it is then a tympanic polypus, but if with this appearance there is no perforation sound, and if with the probe (after cocaine) the pedicle can be felt to be rooted from a lesser depth than that of the meatus, it may possibly be an extratympanic polypus, but the doubt can often only be solved after the excision of the tumour.
- $\beta$  If before or after syringing there can be seen one or more small bright red sessile growths, sometimes againsted into a raspberry looking mass, and which usually bleed on probing (vide also page 209), we have to deal with granulations. These may arise directly from the mucous membrane, or the lining wall of the meatus, but they are usually associated with disease of bone, and more especially when after removal they recur with rapidity
- y. If on inspection the malleus is seen and felt to be baie, eioded and lough either through a perforation of the membrana tensa or of the membrane of Shrapnell or, if there is a persistent perforation in the membrane of Shrapnell behind the processus brevis through which a probe impinges upon rough bone, we have to deal with carries of the malleus or incus, a condition which is probably more often present than we are able clinically to demonstrate.
- 8 If by means of the probe gently passed into the centre of any small or large mass of granulations rough bare bone can be felt, cares of the temporal bone may be diagnosed. The favourite spots for this are the postero-superior wall of the meatus, the outer wall of the attic and (beyond reach of the probe) the roof of the tympanum or the antrum, and the posterior wall of this latter cavity. In cases of long standing discharge, especially in syphilitic or tubercular subjects, the possibility of disease of the bone of greater or less extent can hardly be excluded.
- If the signs already mentioned (page 204) are present, disease of the mastord antrum may be held responsible for the chronicity, but often

without them if there is a fistula on the posterior wall of the external meatus, marked by the presence of a granulation, or if by means of Siegel's exhausting speculum, after thorough syringing of the ear, pus can be sucked out from the postero-superior portion of the tympanum, suppuration in the antrum or in the other accessory cavities may be assumed to be present

- ζ If after cleaning the meatus the use of the syringe bings away a quantity of pieces of white skin-like membrane in an old standing case, there is *cholesteatoma* in the attic or the antium, or some other accessory cavity. This condition is often suggested by the occasional occurrence of headache when the cholesteatoma becomes swollen under the influence of moisture or microbic inflammation.
- $\eta$  By appropriate examination disease of the naso-pharynx may be detected as affording sufficient explanation of the chronicity of the aural suppuration
- 0 Constitutional dyscrasia may explain the chronicity, such as tubercle, syphilis, Bright's disease, anamia, and especially diabetes mellitus. If the suppuration was not preceded by pain, further investigation must be made to confirm the probability of a tuberculous origin (If, on testing with the tuning fork, there is found to be considerable diminution of bone conduction (vide page 202) it may be assumed that there is disease of the labyrinth, associated with suppurative inflammation of the middle ear and probably secondary to it)
- (b,) If the purulent discharge is not and has never been copious, and the deafness has followed the other symptoms at an appreciable interval, then we may fairly assume that the disease arises in the EXTERNAL EAR. This is still further confirmed if the bone conduction is not much increased, at the same time not being diminished, and especially if on inspection the membrana tympani, after cleansing, is found to be whole, and there is no perforation sound on inflation
  - I. The discharge is RECENT.
- (1,) If it has been pieceded by moderate continuous pain, and there is general swelling and redness of the meatus, then there is acute diffuse external otitis.
- (2,) If it has been pieceded by acute paroxysmal pain of several days' duration, it is probably a discharge from a furuncle, in other words, acute circumscribed external otitis, a diagnosis which would be confirmed by the piesence of a localised swelling of dark red colour in one of the walls of the meatus, presenting an aperture at its apex.

(This appearance is sometimes simulated by a bulging confined to the postero-superior wall of the meatus due to the burrowing of pus from the accessory cells, and which may come on rather acutely in the subject of old standing suppurative inflammation of the middle ear)

- II If the symptom is of OLD STANDING we have to deal with simple chronic external otitis
- (1,) If the meatus is more or less filled with soft white skins, usually emitting an offensive odour, the condition is a desquamative dermatitis of the meatus often leading to the formation of so called external cholesteatoma
- (2,) If the scaly condition iapidly recuis, microscopical examination should be made, and if it ieveals the piesence of various forms of aspergillus (a very rate condition in this country) the disease is parasitic external ofitis

(Chronic external offits most frequently occurs as an accompaniment and sequel of chronic suppuration of the middle ear)

- (3,) If there is a pink, shiny growth of soft consistence occupying the meatus, this is a *polypus* which, though most commonly growing from the interior of the tympanum, occasionally arises in the meatus, having its point of attachment on one wall or on the membrana tympani. This is rendered more probable if there is very little discharge, if there is no perforation sound, and if with the probe the pedicle can be traced to a point less than an inch from the orifice
- (4,) If there is a bright red growth of small size or a raspberry looking mass lying in the meatus, the condition is that of granulations which may grow from the surface of the membrana tympani (myringitis granulosa), or from the wall of the meatus at the site of a boil (post-furuncular granulation), or of a limited caries or necrosis. The presence of necrosis may be made out by means of a probe If pressure on the sequestrum causes pain it is probably a separated sequestrum. A granulation on the posterior wall often indicates a fistula between the meatus and the mastoid
  - B The discharge is a slight STICKY OOZING.
- (1,) This is pieceded or accompanied by itching; it may be put down as eczema of the external meatus, and evidence of a gouty diathesis, or of seborrhæa of the scalp, should be sought for as amongst the most important causes.
- (2,) If the discharge is feetid, and the meatus is surrounded by dull, semi-opalescent granular elevations, these are probably *condylomata* of the meatus. They are often very characteristic in appearance, but further evidence of secondary syphilis must be obtained
  - C The discharge is more or less HÆMORRHAGIC
- (1,) There are merely slight streaks in the otherwise purulent discharge; the bleeding arises in all probability from a vascular granu-

lation, or more rarely an *irritated angioma*. These appearances may be readily confirmed by inspection.

- (2,) There is a considerable quantity of pure blood in the later stages of suppurative or carious disease of the middle ear, this is probably due to *erosion of blood vessels*
- (3,) An oozing of blood into the meatus without any of the above signs is a very exceptional occurrence, either as vicarious menstruation or neurotic stigma in hysteria.

## D The discharge is SANIOUS

A SANIOUS offensive discharge with fungating granulations, infiltration of the meatal wall, involvement of nerves (acute radiating neuralgra), and implication of the neighbouring glands, is characteristic of malignant disease of the external meatus or middle ear. Microscopical examination of removed fragments should confirm a diagnosis of cancerous or sarcomatous growth, which is generally not very difficult as long as the surgeon's mind is open to the possibility of its occurrence. It is often simulated by caries or necrosis of the temporal bone in its latter stages. Sarcoma may occur with some of the clinical features of an aural polypus, and epithelioma at its earliest stage may be hardly distinguishable in appearance from a simple warty growth

# THE PATIENT COMPLAINS OF NOISES IN THE HEAD

The different forms of tinnitus aurium, or noises in the head, were fully described in the "Medical Annual" for last year. The chief question for diagnosis is whether or not the noise is caused by disease of the ear, and this depends practically upon whether there is or is not, associated disturbance of the function of hearing.

## A. There is a DEFECT OF HEARING

- (a,) The noise is SIMPLE (not elaborated), there is tinnitus due to diseases of the oigan of hearing, for the diagnosis of which vide pages 196 to 202
  - I The noise is pulsating.
- (1,) It can be checked by compression of the carotid artery in the neck, it is due to arterial congestion of the middle or external ear.
- (2,) It can be checked by compression of the vertebral arteries in the sub-occipital triangle, it is due to arterial congestion of the internal ear
- (3,) If the pulsating murmur is readily heard on auscultation of the cranium, or ear, it is suggestive of the presence of *intra-craniai* ancurism, the other signs of which should be sought.

- II The noise is not pulsating.
- (1,) It is a high-pitched hissing or singing; it is probably due to increased tension of the tympanic structures.
- (2,) It is a dull low-pitched rumbling, buzzing, or rushing, it is probably due to venous congestion, when it is made worse by lying down, ingestion of food or stimulants, and by constipation. On the other hand a humming noise relieved by lying down, by taking food or stimulants, and accompanied by pallor, is caused by anæmia

(The diagnosis is much more dependent upon the investigation of the function of hearing than upon the nature of the noise itself.)

- (3,) It is similar to the resonance of a "sea-shell"; this is usually attributed to the *contraction of the tensor tympani*. It is common in all chronic catarrhs of the middle ear, but is of little diagnostic importance.
- (b,) The noise is of an ELABORATED character, (voices, music, etc); there is an auditory illusion, that is to say, the simple sound resulting from the irritation of the auditory nerve is misinterpreted by a disturbed mental organ. This generally results from mental disturbance, either engrafted on, or caused by chronic disease of the organs of hearing.

# B. The HEARING IS ABNORMALLY ACUTE OR PAINFUL.

- (a,) The hearing is abnormally acute, the patient being the subject of exaggerated nervous excitability; the condition is that of hyperacusis (oxyakoia) a rare condition very readily over-looked.
- (b,) The hearing is painful This condition is hyperasthesia acoustica (odynacusis, DG), is usually only for certain sounds, the patient being often comparatively insensible to others. It is, however, more often a late symptom in chronic catarrh of the middle ear

### C HEARING IS NORMAL under all tests

- (a,) The tinnitus being of a simple (non-elaborated) form, the cause is some functional or organic disturbance in the central percipient organs
- (b<sub>i</sub>) The noise is of an elaborated character (music or voices), there is auditory hallucination, due to present or threatening mental disease.

#### THE PATIENT COMPLAINS OF VERTIGO.

This may be either objective (objects appearing to rotate round the patient), or subjective (the patient feeling himself iotate), and may lead to actual falling down. In cases of vertigo from diseased ear, the writer has usually elicited that the patient felt himself turning away from the affected side.

- A. There is CONCOMITANT DEFECT OF HEAR-ING which may immediately precede, accompany, or immediately follow a given attack of vertigo
- (a,) The defect of hearing is of the character of NERVE DEAF-NESS (vide page 199).
- I. If it has been sudden in onset it may be idiopathic or traumatic
- (1,) If idiopathic, and it takes the form of intense giddiness, usually causing the patient to fall, accompanied by considerable loss of hearing, by tinnitus, nausea, frequent vomiting, coldness and partial collapse, the feeling of rotation continuing to some degree in the recumbent posture, and the loss of hearing being persistent, there is effusion into the labyrinth, so-called "Menière's disease" (A slighter degree of vertigo with a transient defect of hearing, worse on lying down, may be ascribed to congestion of the labyrinth A similar condition, but with disappearance of vertigo on lying down, may be attributed to anæmia of the labyrinth)
- (2,) If traumatic, such symptoms after an injury to the head may alise from concussion of the labyrinth or hæmorrhage into it from fracture of the base of the skull.
- II. If acute in onset, it may be attributed to acute anæma, congestion or inflammation of the labyrinth, as described on page 200, being least marked in the syphilitic form
- III. Chronic veitigo (habitual attacks). For the diagnosis of this, see the description of chronic anæmia, or congestion of the labyrinth, hæmorrhage, or inflammation, traumatic, infectious or simple (vide page 200). It may originate in a distinct attack of effusion into the labyrinth
- (b,) The defect of hearing is of the character of OBSTRUCTIVE DEAFNESS. This form of aural vertigo is often taken for Menière's disease, and may perhaps advisedly be called *pseudo-Menière's disease*. It is usually due to abnormal increase of pressure on the labyrinth, from causes to be distinguished as follows —
- I If there is a discharge from the ear, either acute, or occurring as an acute exacerbation of a chronic suppurative otitis, it may be attributed to the local circulatory disturbance occurring in that disease. At other times there may be a vascular granulation pressing upon the stapes, or there may be abnormal in-pushing of that ossicle from contraction of the tensor tympani, as in cases of large perforation, the muscle not being opposed by the fibres of the membrane.

- II If there is no discharge, the symptoms of the forms of deafness described on page 198 must be sought for It will be generally attributable to labyrinthine pressure due to indrawing of the membrane from non-ventilation of the tympanum in Eustachian catarrh, or to over-action of the tensor tympani, especially in extreme relaxation of the membrane, or the loss of large portions of it from old suppurative inflammation, or rarely from inaction of the stapedius
  - B If there is NO DEFECT OF HEARING the vertigo cannot be attributed to disease of the ear. The case may be simplified by attention to the following frequent causes of vertigo.
- (a,) If the attack is marked by a more or less protracted period of unconsciousness preceded by an auia, followed by drowsiness, the probability of its being due to epilepsy must be kept in mind
- (b,) If there is only a momentary unconsciousness, which is at once recovered from as the patient falls down, and this has been excited by an attempt to cough, such symptoms arise from laryngeal vertigo or syncope
  - (c,) If there is no unconsciousness during the attack;
  - I If it is affected by closing the eyes -
- (1,) If closing the eyes in a case of definite vertigo affords complete relief there is ocular vertigo, and the case should be submitted to ophthalmic examination. In the indefinite dizziness experienced by some when on a height, or in a vast space, or after rotatory movements, relief may follow closure of the eyes apart from ocular disease.
- (2,) If it is made worse by closing the eyes, then a loss of kneejerk, etc, would suggest a search for the other signs of *locomotor ataxia* or *cerebellar disease*, the latter sometimes producing attacks of vertigo resembling those of labyrinthine origin, but except in the very rarest instances without impairment of hearing
  - II If it is not affected by closing the eyes, then :-
- (1,) If the attack is preceded by well marked symptoms of dyspepia, and is relieved by vomiting, it is gastric vertigo. Many of the cases attributed to this are really labyrinthine vertigo with accentuation of the vomiting.
- (2,) If there is tension and possibly slowness of the pulse, the other signs of arterial capillary fibrosis should be sought for as a cause of so-called *renal vertigo*, or the *vertigo of arterio-capillary fibrosis*: It is of the less definite form, and frequently recurs.
  - (3,) If there is congestion of the face, sleeplessness, and increase

of the discomfort on lying down, vertigo of indefinite type is probably due to cerebral congestion

(4,) A dizziness accompanied by pallor, faintness, and nausea, and relieved by long down is probably due to cerebral anæmia

The most definite forms of vertigo arise from labyrinthine disease, and disease of the cerebellum.

#### THERE IS SOME VISIBLE ABNORMALITY

We refer here to those cases to which attention is not drawn so much by disturbances of function or sensation as by the alterations in appearance, and which have consequently not been dealt with in previous sections

- A The AURICLE is abnormal in appearance.
- (a,) The abnormality is CONGENITAL; there may be:
- I. Abnormalities in size (microtia and macrotia).
- II In number, *polyotia*. There may be small nodules of cartilage covered with skin with or without an associated fistula (*supernumerary auricles*)
- III In shape The auricle may be like a twisted up roll of skin, or it may fold over the meatus. There may also be abnormal development of the apex of the ear. The satyr ear (the upper anti-helix limb extending up into this projection), or the Darwinian tubercle on the edge of the helix may be especially prominent.
  - IV In position.
- (1,) It may be developed lower down than is natural, and quite away from the site of the meatus
  - (2,) The auricle may project
    - (b,) The abnormality is ACQUIRED
    - I Changes on the surface
- (1,) Alterations in colour may be due to the various forms of skin disease which we shall not here specialize Changes in the continuity, the result of ulcers of various forms, including particularly lupus and epithelioma
  - II. Changes in shape.
  - (1,) Swelling
- a. Without loss of the outlines of the different parts of the auricle may be due either to eczema or to erysipelatous inflammation, the former being a more chronic condition, and accompanied by less constitutional disturbance; the latter acute with considerable constitutional disturbance.
- β. With loss of some of the outlines, it may occur as the result of

hæmatoma. In this case there is an extravasation of blood into the caitilage and perichondrial space, the auricle in almost its entire extent, swells up with considerable suddenness into a founded tense fluctuating tumour. This may be idiopathic, and then occurs chiefly in the insane, or it may be traumatic from a blow on the ear. There is no notable degree of inflammatory disturbance, and in this it differs from a perichondrilis, which presents somewhat similar features, but is accompanied by considerable pain, is of a brighter red colour, and is usually preceded by futuncle or other inflammation in the external meatus. Limited swellings may occur owing to the presence of new growths of which the most common are sebaceous tumours. Tumours further occur round the site of the piercing of the lobule. They are extremely rare in this country. They are generally fibromata, or fibro-sarcomata.

- (2,) Shrivelling of the auricle usually occurs as the result of hæmatoma
- (3,) Loss of tissue may occur from ulceration, this being a favourite seat of gangrene from exposure to cold, occasionally also of gangrene occurring at the same time in the tips of the fingers or toes (Tiue or spurious Raynaud's disease)
  - B There are abnormalities in the appearance of the MEATUS which may be visible with or without the use of the speculum
- (a,) If they are CONGENITAL they are due to malformations from defective development
- (1,) The passage may be completely absent, or it may be represented by a mere dimple, congenital atresia. To the probe there is often a feeling as if there was simply a diaphragm of skin with a normal meatus beyond it. As a rule this is absolutely deceptive, and shows a congenital absence of meatus indicating an incomplete development of the structures beyond. This is often accompanied by defective development of the auricle and also by incomplete growth of the corresponding half of the inferior maxilla.
- (2,) There is apparently a *double meatus* which may lead into the mastoid process. This is an arrest in the closure of the first branchial cleft
  - (b,) ACQUIRED
- I The meatus is occluded either at its orifice or at a varying depth
- (i,) By means of skin oi cicatrix, there being a history of previous inflammation and discharge of either idiopathic or traumatic (ze, buins, scalds, or corrosive liquids) origin. In the traumatic cases

especially, there may be a comparatively complete meatus and normal tympanum beyond the obstruction. This is inflammatory adhesive atresia.

- (2,) By means of one or more hard skin covered bodies of a rounded shape growing from the meatal wall. This is *exostosis*, either single or multiple. When these are multiple and the growths enlarged so as to completely occlude the meatus, the stellate or leech-bite form of depression between them is very characteristic.
- (3,) A *foreign body* if not of a kind to be acted on by moisture may rest quietly in the meatus for very long periods without causing any symptoms and may be discovered by accidental inspection, or when accumulation of wax takes place to a sufficient extent to block up the little remaining passage
- (4,) There is a dark-brown mass. This is probably a collection of *cerumen* which may not interfere with hearing owing to its not totally filling the meatus though apparently doing so, and leaving just sufficient space for the entrance of sound waves. The floor of the meatus is sometimes extremely convex, and when plastered over with a layer of cerumen may simulate a formed plug of that material.
  - II The meatus is narrowed
  - (1,) Concentrically as a whole.
- a It is reduced to a slit without any evidence of inflammatory change This occurs in old people who have lost their back teeth, and is due to increased forcing up of the condyle of the lower jaw, and a somewhat similar condition occurs in connection with excessive development of fat—semile stenosis.
- $\beta$  The walls of the meatus may be thickened and somewhat redder in colour than normal. This is *inflammatory stenosis* from old external otitis.
- γ The thickening of the walls may be so dense as to be obviously due to periostric inflammation or hyperostosis
  - (2,) The passage is eccentrically or irregularly narrowed.
- a There are one or more hard skin covered growths projecting from the walls On examination with the probe they are found to be of the hardness of bone, or even of ivory These are exostoses.
- β A general slight bony narrowing, with more projecting parts at different portions of its circumference is a common form of hyperostosis

NOTE—The density of these bony formations varies considerably, some being so hard as to deserve the name of *vvory exostoses*, and these are generally broad based or sessile, others are usually pedunculated or so soft as to suggest that they are calcified or ossified granulations.

## Diseases of Ear (Recent Contributions).

J Dundas Grant, M.D., FRCS.

The relations of the bony casing of the facial nerve are very fully described by Professor Gellé. He points out that the nerve lies buried not very deeply in the innermost 4 millimètres of the posterior wall of the external osseous meatus, as well as in the partition which separates the cavity of the tympanum from that of the antrum. It may therefore be paralysed by the effects of disease in the portion of the meatus mentioned, as well as by disease in the tympanum itself. It is of the utmost importance to recollect this relation in performing any extensive operations for caries of the temporal bone, and in a lesser degree also, when curetting or removing polypi, enlarging fistulæ, or even probing the innermost part of the external meatus. He illustrates this by the description of a case in which facial paralysis immediately resulted from what was apparently the simple operation of removing a small polypus from the meatus.

A better appreciation of Rinné's Test The "aero-osseal difference" —In a paper on this subject read before the Otological section of the British Medical Association, at Bristol, Dr. Dundas Grant,2 drew attention to what he called the "normal aero-osseal difference," that is to say, the length of time that normally the tuning fork in use is heard opposite the meatus after it has caused to be heard on the mastoid In cases of considerable degrees of obstructive deafness this normal aero-osseal difference is absent, and Rinné's test is then "negative," while in the slighter affections it may be simply diminished, and Rinné's test is positive, but shortened. Thus a positive result with Rinne's test does not exclude a slight degree of middle ear disease A negative result of Rinne's test would indicate undoubted obstructive deafness, whether or not there was nerve deafness in addition A frequent source of fallacy existed in cases of marked unilateral nerve deafness, because a vibrating tuning-foik placed upon the mastoid until no longer heard, and then transferred to the meatus was likewise no longer heard. This "negative" result of Rinné's test was illusory, the tuning fork on the mastoid having in reality been heard by the nervous apparatus of the opposite ear. This result has therefore to be checked by Weber's, and other tests, which can be easily done if the possibility of its occurrence is kept in

Abscesses in the external meatus are treated by Courtade<sup>3</sup> by means of intubation, namely, the introduction into the external meatus of an india-rubber tube. He has found speedy relief follow this method of treatment in cases of follicular abscesses, or furuncle of the meatus.

After some days of intubation, the tube is removed and a plug of rodoform gauze is put in its place to keep up the dilatation and to insure antisepsis. He considers it useless when an abscess of considerable size is visible from the exterior, and is then more suitable for treatment by incision. It is indicated whenever the auditory meatus is swollen from otitis externa, and after the operation of separation of the auricle which is now performed for so many purposes. Our readers will remember that the treatment of external otitis by means of plugs of cotton wool dipped in warmed Goulard's solution has long been recommended and used with excellent results, answering very much the same purpose so far as the dilatation was concerned. The use of the drainage tube is however a valuable addition to our means of treating these affections.

Sclerosis of the middle ear has been treated by several authors by means of injections of Liquid Vaseline or Parolein Delstanche, of Brussels, was the first to draw our attention forcibly to the value of this method of treatment. It has been carried out by, among others, Dr Adolph Bronner, Dr Broeckaert, Dr. Seiss, and Dr Dundas Grant 7 In a fair proportion of cases, very distinct amelioration has The proceeding is carried out by the introduction been recorded of the Eustachian catheter in the ordinary way, the fact of its being in situ being confirmed by auscultation. About 20 minims or 1/2 a drachm of liquid vaseline or parolein is introduced into the catheter by means of a small syringe. The air bag is then applied and the liquid is driven up the Eustachian tubes, a small quantity of it probably entering the tympanum. In some cases, it is advisable to pass through the Eustachian catheter a Weber-Liel's gum-elastic intra-tympanic tube, which may be passed for nearly an inch beyond the tip of the Through it a few drops of the solution may be Eustachian cathetei intioduced into the tympanum, considerable pressure with the air balloon being necessary on account of the nariowness of the calibre of the tube To each ounce of the liquid may advantageously be added a grain of menthol and a grain of camphor Seiss,8 recommends this treatment very strongly in cases of tinnitus due to auial sclerosis, as also the employment of freezing by means of ethyl chloride over the branches of the post-auricular and stylo-mastoid arteries Dr Knapp<sup>9</sup> has seen benefit follow the use of Lucae's spring pressure probe, especially in its recently improved form. The instrument as more elastic than formerly, and its end is dipped in a freezing solution for a short time before use In view of the excellent results sometimes derived from Massage and Passive Movement of the membrane and ossicles by means of Delstanche's rarefacteur, and by Siegel's pneumatic speculum, Kirchner devised a simple instrument for the use in particular of the poorer class of patients, an apparatus for gymnastics of drum and ossicles which he exhibited before the Roman Congress. It consists of an india-rubber tube fitting tightly into the auditory meatus, and a mouthpiece at the other end by means of which the patient could alternately blow and suck so as to move the structures mentioned in and out, the amount of force used being regulated by the patient's own sensations. To prevent the insuction of objectionable matters into the mouth, a glass bulb containing a little wool is introduced into the course of the india-rubber tube

219

The Curette and the Bur in Mastoid Operations - Dr Clarence Blake, II in a paper read before the Roman Congress, advocated greater dependence upon the use of the curette in mastoid operations. The instruments recommended should have rather a longer lip than the sharp spoons with which we are generally provided. It is obvious that by working from within outwards greater safety is ensured, and much may be accomplished which would otherwise have to be done by means of the more dangerous gouge and mallet. Macewen<sup>12</sup> is, on the other hand, in favour of the use of a bur, worked by means of a dental engine, and in his hands it seems to have given extremely good results. The instrument has to be held like a pen, and applied very lightly to the bone. When an aperture has been made, it can readily be enlarged by the application of the bur to its margins, but the progress should be constantly tested by means of a searcher. practised hands, this instrument is no doubt very valuable, and its use in preference to the gouge and mallet may spare the necessity for a considerable amount of concussion, which might lead to the rupture of an abscess, or to the fracture of the roof of the middle ear. Macewen's recommendation ought certainly to receive very considerable attention

Operative removal of Cholesteatoma—Dr Reinhardt,<sup>13</sup> of Duisburg, advises the retention of a persistent opening in the mastoid after the removal of cholesteatoma by operation in that region. To facilitate this, a flap of skin should be inverted into the cavity, as has already been recommended by other writers. He advises, however, that the flap should be taken from the posteriol surface of the auricle, as it is not likely to give trouble through the growth of hair. At the Roman Congress he gave his experience of a considerable number of cases. The flap of skin must be marked out and dissected up in the course of the usual incision. The Editor has found it comparatively easy in this way to make a small tongue-shaped flap, the edges

of the incision by which it is removed from the back of the auricle being brought together by means of stitches, and healing very readily.

Macewen's Treatment of Phlebitis of the Lateral Sinus - After having in all cases pieviously opened the antrum and tympanum. Di Macewen<sup>14</sup> exposes the sigmoid sinus by the application of a rotatory bur behind the posterior wall of the antium He continues the opening for half an inch horizontally backwards, and then enlarges it upwards and downwards according to the requirements of the case there is thrombosis it is laid bare to the extent of an inch vertically. Should the wall of the sinus be perforated by ulceration the purulent contents are scooped out through the existing opening, otherwise this is done through an artificial slit made for the purpose The sinus is next obliterated by induplication of the walls Powdered Boracic Acid (4 parts) with **Iodoform** (1 part) is then packed in up to the level of the bone and the wound stuffed with iodoform gauze He considers this treatment sufficient in most cases without ligation of the internal lugular This latter operation he considers to be often difficult owing to the matting of surrounding tissues and enlargement of glands, apt to defy asepsis, and always leading to a reversal of the current in intracranial sinuses which may lead to the diffusion of septic material in the cianial contents. He holds, furthermore, that it does not shut off all the venous 10utes by which septic embolism may invade the vital organs, such as the condylar veins Of course when the ligation of the vein is determined on, this must be done before the sinus is "When," he says, "the infective thrombus in the sigmoid sinus has undergone such extensive disintegration as is unlikely to be reached by obliteration of the upper two-thirds of the sigmoid sinus, the ligature of the internal jugular is indi-When in a thrombosed internal jugular, giving the sensation of a hard coid-like structure, its upper part becomes soft from disintegration of the thrombus, and when this is followed by descending disintegration, ligation of the vessel below this point is in most cases necessary" Suigeons will not readily abandon on theoretical grounds an operation from which such excellent results have so frequently accrued, but they cannot but be impressed with the results obtained by Prof Macewen from the simple obliteration of a poition of the sigmoid sinus

New Aural Specula —M1 Richard Lake 15 has had a speculum made of silvered glass and covered with gum like a Ferguson's vaginal instrument. It is claimed for it that it reflects light better than those in use, and that it is not injuised by acids. Dr. McNaughton Iones 16

has devised one with a hinged clip for the reception of magnifying lenses of various strength. Dr. Dundas Grant's magnifying operating speculum (Fig. 1) has also a hinged clip with a lens fixed in it, but the lower part of the lens and of a considerable portion of the speculum is cut away so as to

allow ample room for the introduction of probes and operating instruments, without interfering with the use of the speculum in the usual way.

Dr. Wodon<sup>18</sup> has modified the ordinary speculum by making oval openings in the side of the tube, so as to expose a limited portion of the meatal wall.

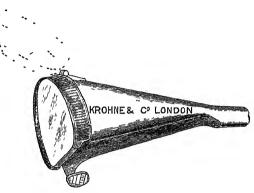


Fig I -Dr Dundas Grant's Speculum.

REFERENCES—" "Ann de Mal de l'Oreille," January, 1894; 2" Journ of Laryngol," Oct 1894, 3" Ibid, June, 1894, 4" Brit. Med. Journ," 1894, vol 11, p 805, 5" Journ of Laryngol," p 822, 1894, 6" Ann of Oph and Otol."; 7" Journ of Laryngol," p. 573, 1894, 8" Ann of Otol," Jan 1894, 9" Brit Med. Journ"; "" Journ of Laryngol," p 281, 1894; "" Journ of Laryngol," p 325, June, 1894; "" Pyogenic Diseases of the Brain and Spinal Cord," p 299, Glasgow, 1893, "3" Journ of Laryngol," p 273, May, 1894; "" Pyogenic Diseases of the Brain and Spinal Cord," p 311, Glasgow, 1893; "5" Brit Med. Journ.," Feb. 3, 1894; "6" Lancet," Nov 18, 1893; "7" Journ of Laryngol," p 404, July, 1894, "8 Ibid, p. 838, Dec. 1894.

Aural Vertigo. [Editorial.

MacKenzie<sup>x</sup> after a discussion of the lesions, the diagnosis, and the causes of aural vertigo, holds that the prognosis is unfavourable so far as recurrences are concerned, unless the condition is due to a foreign body.

The treatment of an acute attack requires that the patient should be put in a recumbent position so long as the vertigo is increased by standing up. The excitability of the nervous centres is subdued by Bromide of Potassium given in moderate doses. In gouty cases, Bromide of Lithium, also the Salts of Potassium, Colchicum, and Salicylate of Sodium, are often of service, especially when preceded by a mercurial purge. Counter-irritation, in the form of a small blister be-

hind the ear, is sometimes of benefit. Any local disorders of the middle or external ear should receive attention. During the intervals between paroxysms, Quinine, 3 or 4 grains three times a day, and in some cases double this dose, is of service. Salicylate of Sodium appears to do good, Pilocarpine is recommended given hypodermically, beginning with 3  $^{\text{th}}$  doses of 4 per cent solution every day, and increasing the dose to  $^{1}_{10}$ ,  $^{1}_{4}$ , or even  $^{1}_{8}$  if the drug is well borne. The arterial tension should be well observed. For the purpose of keeping this down, Mercury is particularly serviceable, an occasional blue pill being given once or twice a week, or, in place of this, Calomel may be used, 3 to 5 grains, to be taken whenever there are premonitory symptoms, such as increased tinnitus, fulness in the head, or headache

REFERENCE - "Therap Gaz," Aug 15, 1894.

Synopsis - (Vol 1894, p 231) Unrefined Honey with Rye-meal as topical dressing for par-auricular abscess Iodol for moist eczema, preceded by washing with lotion of Van Swieten's Liquor with 3 or 4 times its bulk of warm water For dry eczema Iodol, i part, Lanoline, 30 parts, when affecting meatus syringe out with the above lotion, dry and fill with 10dol 1 part, paraffin oil 30 parts, or apply concentrated Nitrate of Silver Solution in a tampon after warm syringing For pityriasis, remove hairs, cleanse with Boric Acid Solution and apply Silver Nitrate Solution, r to 20, on cotton wool When scales are removed apply solution of Salicylic Acid, Canada Balsam and Collodion on wool For otalgia, Massage by elastic probe, also R Camphorated Chloral, 5 parts, Glycerin, 30 parts, Sweet Almond Oil, 10 parts, apply on cotton wool Butyl-chloral-hydrate, 5 gr pill until 30 gr are taken, in neuralgia due to middle ear disease For otitis, Cocaine Hydrochlor, 5% solution, or Liquid Vaseline Injections Chronic cases of otorrhea sometimes cured by copious warm syringing with 1 to 8000 Bichloride Solution, also washing with 3% Boracic Acid Solution, drying and introducing Dermatol For labyrinthitis due to syphilis, Pot Iodide and McDade's Mixture, together with Pilocarpin Nitrate hypodermically, gr  $\frac{1}{10}$  up to  $\frac{1}{5}$  and even In Menière's disease Quinine may be combined with 0 6 or 1 gramme of Ergotine daily, Iodide of Potassium in apoplectiform cases, also Pilocarpin and Antipyrin, also Pot Bromide in large doses-45 grs t d, Valerianate of Iron with Opium and Cascara Sagrada

#### ECZEMA.

T Colcott Fox, M B

Veiel holds there is no specific for eczema, and internal treatment is only indicated where complications such as scrofulosis, anæmia, gout, glycosuria, or albuminuria exist. The action even of arsenic in old infiltrated eczemas is problematical. Tar and its derivatives and Mercurials, which penetrate and traverse the intact skin, are the most active remedies because they are parasiticides, whilst Lead, Bismuth, Zinc and other non-volatile metallic substances will heal, but do not bring about a durable cure. In intertriginous eczemas of obese per-

sons and in eczema associated with piles, Veiel has never seen a cure brought about by dieting alone, though the latter may assist

In acute but dry eczema dry cold applications do best, as sachets of starch powder, a bladder of ice enveloped in linen, gelatines. The latter often cuts short an attack. If the inflammation goes on to exudation, or if very widespread, powders must be used till a remission occurs. Any patches remaining weeping cure very rapidly with Unna's Plaster of Oxide of Zinc and Benzoic Acid, Lassar's Paste, and especially Pick's Plaster of Salicylic Soap. In the scaly period he prefers a 5 per cent. Tannin Ointment or Wilson's Salve.

In chionic eczema, Pick's sublimate gelatine or his plaster above mentioned or Lassar's paste, do well In callous eczemas of the palms and soles he uses Unna's salicylic plaster, taking great care to remove it if it excites inflammation Moist eczemas of hairy regions are dried up as a rule by a 10 per cent salicylic ointment, but sometimes tar is necessary Nothing as yet has completely replaced tar, and the tar soap is the best. Its lather applied twice daily with a brush is often efficacious, and especially in the generalized scaly eczemas of old people, and when coated over with zinc glyco-gelatine. At the beginning he often applies I per cent of tar in cold cream with 5 per cent of tannin, or in Kaposi's diachylon ointment. Where pure tar is indicated oil of cade is best. Alcoholic solutions of tar are more energetic and rapid, but require watching Caoutchouc dressings increase the action of tar Where much infiltration exists he employs chrysarobin and pyrogallol, while protecting the periphery with zinc Resorcin, creolin, and ichthvol have a less sure glyco-gelatine action He rarely uses sulphur except in seborrhœic eczema

An interesting discussion on the *nature of eczema* took place in the Section of Dermatology and Syphiligraphy of the International Medical Congress at Rome The  $r\partial le$  of micro-organisms in the etiology was the chief point of debate

At the Bristol meeting of the British Medical Associaton Malcolm Morris introduced a discussion on the *Management of Eczema* with an admirable paper, which will repay study After some preliminary remarks, he expressed his opinion that the constitutional element is in most cases altogether secondary, exciting only a modifying influence on the local process. The causa causans he believed in the majority of cases to be micro-organisms.

A constitutional dyscrasia, a disordered innervation, debility and exhaustion from want of sleep and suffering, or disorder of the digestive apparatus, should be remedied by appropriate measures. In the absence of such underlying and modifying influences he trusts to local

When the lesions are acutely inflamed, and there is treatment atterial tension Morris recommends Vinum Antimoniale, beginning with a dose of mx-xiii, repeating it in an hour and perhaps two hours later again, and gradually widening the intervals whilst reducing the dose till it reaches my: The latter dose should be continued thrice daily till the inflammation distinctly subsides Depression is a positive contia-indication for the employment of this drug. are indicated where there is great nervous excitement and sleeplessness Opium is here the sheet anchor, preceded by a full dose of calomel. and the action of the opium afterwards regulated by saline aperients Sulphonal may be given where opium disagrees. With nervous depression nerve tonics are called for, of which Quinine is the best. It may be combined with opium, as in cases with much discharge Belladonna may be with quinine Phosphorus, Strychnine, Arsenic, carefully exhibited in the absence of acute inflammation, and Ergotin where there are frequent exacerbations may also be useful. Malnutrition. weakness, and anæmia, are indications for Cod-liver Oil and general tonic treatment, but non is harmful in the presence of acute inflam-Any definite source of peripheral irritation should be removed, menstrual derangement or uterine disease remedied, and the nervous disturbances incidental to the climacteric period combated by such drugs as Musk, Valerian, etc.

Diet has no influence at all in Moriis's opinion, except indirectly. The patient should take such food as he finds most suitable to his digestive powers, and avoid a "lowering" regimen Otherwise the only indications for special dieting are in the presence of such conditions as gout or diabetes, and the advisability of a limited, bland, non-stimulating diet in acute inflammation. Strict moderation in the quantity of drink is advisable, and in acute eczema all beverages causing flushing are madmissible, otherwise beer, to and coffee are usually allowable.

In the local treatment the following aims are to be kept in view, viz, to destroy micro-organisms, to protect the inflamed surface from the air, and from further microbic invasion, and to sooth irritation, and further in the application of remedies, to temper the strength of the remedy to the tolerance of the patient's skin, and to keep the remedy continuously in contact with the affected parts. Sooth when the inflammatory process is acute, stimulate when it is chronic, and in either case keep the parts under the continuous influence of antiseptics and parasiticides, of a strength carefully regulated in accordance with the intensity of the disease, and the sensitiveness of the skin. In acute eccema lebthvol is particularly useful as a vas-

cular sedative and parasiticide. When the discharge is profuse wash the part with a weak solution of boild acid, and then dry with muslin bags containing staich or flour with bond acid. In dry chronic eczema begin with precipitated sulphur or resording grains x of either to zind outtiment or other soothing base 5j, and gradually increase the strength with watchful date not to cause illitation. Salicylic acid, white precipitate, boild and carbolic acids, are also useful with cooling creams as vehicles.

For the continuous application of local remedies in limited areas of a chronic character, Unna's plaster mulls, such as carbolic acid and mercury, and oxide of zinc, are most serviceable **Chrysarobin** gives good results in persistent chronic eczemas of the flexures

In preventing relapses, *change of climate*, with complete rest of mind and body, is productive of good, and various "waters" are serviceable chiefly in obstinate chronic cases

At the same meeting Unna demonstrated the "moro-coccus," which he believes to be the characteristic microbe of eczema. It chiefly grows in moist crusts, and not in the blood, it must have oxygen

Klotz,<sup>2</sup> writes on the principle of antisepsis in the treatment of eczema. In aggravated cases he (a,) Removes all crusts and encumbrances with castile soap and water, and afterwards cleanses the surface with an aqueous solution of corrosive sublimate (1 in 3000 or 5000), or in milder cases or in children with a 2 to 3 per cent solution of boric acid, (b,) He washes the diseased areas with a similar solution night and morning by means of a pad of absorbent cotton, a piece of lint, or a clean cloth (not sponge), (c,) At night, and, if possible, in the morning, he applies for half an hour or an hour lint or cotton soaked and kept moist in a similar solution, (d,) After this the parts are carefully dried, and a 10 per cent boric acid vaseline is rubbed in and covered with lint or cotton and bandaged, (e,) This course or treatment is continued until a clean surface is presented and suppuration has ceased

In cases of very acute inflammation, or in eczema of the lips, with or without ulcers, he applies compresses soaked in boric acid solution to which 2 to 4 parts of acetate of lead per 1000 are added. A little glycerine and alcohol may be added, and a third or a quarter of the water replaced by lime-water

Other antiseptics of great value are ichthyol (I to 2 in 1000), salicylic acid, resorcin, thymol, permanganate of potassium, tannin, acetate of alumina, and carbolic acid. In dusting powders the tendency is, Klotz says, to eliminate all vegetable powders like starch, and use minerals, not liable to decomposition, like talcum, kaolin, carbonate of

225

magnesia, etc The addition of 5 to 15 per cent of boric acid is very useful

In the discussion alising on this paper Fox insisted on the necessity for internal treatment, and on the value of the impermeable dressing of **Yulcanized India-rubber**, which is not an antiseptic method Jackson and Elliot disagreed with the author as to the harmlessness of water in many cases

In chronic eczema of the palms and soles Wickham<sup>3</sup> softens the epideimis by poulticing, then applies a thick layer of soft potash soap for twenty-four hours—or a mixture of equal parts of green soap, oil of cade, and sulphur, or salicylic or pyrogallic ointments—The irritation set—up is soothed and the process repeated. Mercurial plasters used in same way are useful

Braun<sup>4</sup> touches the eczematous palmai areas with a few drops of **Gaustic Potash** (grains xv to xxx of water), and then applies thrice daily a salve made of 4 grains of silver nitrate with 75 drops of liquid vaseline in 5 drachms of lanolin

Holstein<sup>5</sup> in very obstinate cases of what he describes as neurotic reflex eczema gives **Ergotin** internally, and applies externally a 2 to 12 to 30 per cent outment of **Liquid Extract of Ergot** 

Doumer reports highly satisfactory results from the employment of the Electric Souffle He advises a machine giving sparks three inches long and an electrode with points for the breeze or brush discharge Either pole can be used

Here is the formula for a soothing paste strongly recommended by Berliner —

R Ovide of Zinc Esypus Olive Oil Ea 3 grms

To this various medicaments can be added, it desired

Laughlin considers that **Thiol** has all the advantages of 1chthyol without its odour, 11ritant quality, and diffuses

Cazenave and Rollet find that Gallanol is an active reducing agent on the skin, antiseptic and microbicidal, but not toxic like pyrogallol In eczema it quiets itching, stops exudation, and causes rapid drying of the surface

Eczema seborrhæicum — Those who wish to possess themselves fully with Unna's latest views on eczema seborrhæicum can turn to the last edition of McCall Anderson's treatise on skin diseases or to Unna's article in the "Saminlung Klinischer Vortrage," No 79, 1893 The latter has been fully epitomized in most of the Dermatological Journals, and we make use here of Barendt's abstract in the "British Journal of Dermatology,"

"For pitymasis capitis and the accompanying alopecia the following poinade is to be used twice a week, or more often, Hebra's spiritus saponis alkalinus being employed for removing crusts and preventing any caking of the pomade —

R Sulphuris præcipitati (by weight) parts i to 3 Unguenti pomadini ,, 30

"In case the yellow colour of the sulphur is objected to, 2 to 5 per cent resorcin pomade, with the addition of I per mille perchloride of mercury, or I per cent, carbolate of zinc, may be substituted. If defluvium capillitis be present, 2 to 10 per cent of tincture of canthandes may be added to the sulphur pomade. For papular eruptions covered with crusts, scaly spots, circumscribed patches with a tendency to moisture, the treatment with paste is the most suitable.—

	Zinc Oxidi				(by	weight)	pai ts	6
	Sulphuiis præcipitati	ι.	•			,,	,,	4
	Teriæ Siliceæ	•	•	•		"	"	2 28
	Adıpıs Benzoatı							
		MT	S	Pasta.				

"This is to be carefully worked into the eruption, all crusts having been previously removed with Hebra's alkaline spirit of soap lotion

"Should the skin show signs of mutation, zinc-gelatine or cold cream may be used intercurrently with the paste

"Where hyperæmia is present, 5 to 10 per cent of sulpho-ichthyolate of ammonium is added, where anæmia, 5 to 10 per cent of resorcin (preferable to an increase of the sulphur)

"When there is marked epithelial proliferation, the above treatment must be alternated with a chrysarobin course —

	y weight)	parts	5
Acidi Salicylici	**	,,	2
Ammonii Sulpho ichthy olatis,	**	,,	_ 5
Paraffini Mollis	**	,,	88
M S Unguentum			

"This must be rubbed in twice a day, and woollen underclothing woin Chicumschibed patches may be afterwards covered by a thin layer of cotton-wool, gutta-percha tissue, and fixed by a muslin bandage

"In certain cases, especially where the patient resides at a distance, resorcin evaporating lotion is of service —

$\mathbf{B}_{\!$	Res	orcini								
	Gly	cerini.		•		(by	weigh	t) ā	ā part	s Io
	Spi	ritus .	•				,,		,,	180
M	ŝ	Lotio,	To be	diluted	with	four	times	the	amou	nt of
	water oi chamomile-flowei tea									

"This is to be used in the usual way, in cases of universal sebonhence eczema a combination woollen gaiment, soaked in an ordinary washhand basin half full of water, containing for adults 5 grains of resorcin, for children 2 grains of resorcin, is put on at night and the patient wrapped up between blankets. The following day the zinc-sulphur paste is to be applied.

"Of special forms of seborrheic eczema, the moist eruptions of children's heads, the intertrigines, and rosacea seborrheica, may be treated as follows. The first two require the alternate application of zinc-sulphur paste and zinc-richthyol salve-muslin.

"Seborrhœic 10sacea, in addition to the use of the zinc-sulphur paste, often requires the application of a decorticating paste —

R. Zinci Oxidi 4 parts | Resorcini 20 parts Terræ Siliceæ r part | Adipis Benzoati 15 parts M S Pasta Decorticans To be used with care

Audry, has a long critical review on eczema seborrhæicum. In treatment it is necessary, he says, to distinguish typical forms from those with complications, such as eczematisation and pustulation. Sulphur may be considered as a specific, but must be applied with discernment. He employs rather stronger preparations than Unna, and in all cases washes the part twice daily with I in 1000 sublimate lotion before applying the ointment, and removes fat with warm soapy lotions. Sulphur baths are useful. In active exudating or pustulating cases he thoroughly cleanses and disinfects, and then finds a wet dressing of sublimate (I in 1000 or 1500), well borne. Boric acid in powder or combined with some ment absorbing powder, or with a little sulphur, is very useful. When the cruption is dired, the sulphur ointment combined with I to 2 per cent salicylic acid or boric acid or resorcin is called for again. Audry recommends the following paste.—

B. Anhydrous Lanoline 40 parts | Olive Oil 20 parts | Vegetable Wax 40 parts | Sulphur q s

Or glycerole of starch with sulphur

REFERENCES—""Verhandlungen dei Deutschen Dermatologischen Gesellschaft," p 161, 1892, ""Journ Cut and Gen-Uim Dis," p 99, 1894, 3 quoted "Jouin Cut and Gen-Uim Dis," p 133, 1894, 4"La Sémaine Med," No 30, 1894, 5" Monatsh f. Piakt Deim," I, 1894, 6 "Arch d'Elect. Méd," May, 1894, 7 "Ann de Deim et de Syph," p 761, 1894.

Synopsis — (Vol 1894, pp 8, 22, and 23) Alumnal as dusting powder Losophan, I – 2% solution in spirit and water, or 1% ointment for chronic eczema Myiiholin Cerate foi eczema of nostiils

## ECZEMA (Hands and Fingers).

Synopsis—(Vol 1894, p 234) Oxides of Zinc, Lead and Mercury, also Tar, Sulphur, Ichthyol, Resorcin, Pyrogallol and Chrysarobin—Protection by gutta-percha tissue during day As cheap pastes (1,) & Oxide of Zinc, 40%, Chalk, Lead Lotion, Linseed Oil, āā 20%, (2,) & Oxide of Lead, 50%, Ordinary Vinegar, 75% (3,) & Oxide of Zinc, Sulphur, Chalk, Linseed Oil, Lime-water, āā 20%. For chrysarobin pencils & Chrysarobin, 10%, Lanoline, 30%, Wax, 60%, or & Chrysarobin, 10%, Salicylic Acid, 20%, Lanoline, 30%, Wax, 40% Melt and pour into glass tubes—To increase the horny protecting upper layer of skin & Ung Zinci, Resorcini, āā grm 100, Terr. Siliceæ, grm 20, M ft pasta

## EMPYEMA (Nasal)

William Milligan, MD.

Empyema of the Frontal Sinus—On account of the late development of the frontal sinuses, this affection is failely met with before adult life. The most frequent exciting causes are chronic inflammatory affections of the nasal mucosa, leading to occlusion of the naso-frontal duct, injuries, passage of insects into the sinus, eruptive fevers, and polypi developing within the sinus

Usually only one sinus is affected, but cases occur in which the bony partition between the two becomes bloken down (or it may not be properly developed), and so a purulent collection is found upon both sides

Pain, which is at first localised to the glabella, may become more diffuse and at times is very severe, especially when there is retention of secretion. When the naso-frontal duct is patent, a purulent discharge may be seen upon rhinoscopic examination flowing over the anterior extremity of the middle turbinate body. Where, however, obstruction to the outflow of pus is present, accumulation takes place within the sinus and severe tension symptoms set in. Usually the abscess points at the upper and inner corner of the oibit, displacing the bulbus oculi downwards and outwards. Or pus may spread inwards and force an entrance into the cranial cavity, setting up diffuse purulent meningitis.

In the early stages the diagnosis is somewhat difficult, and such cases are frequently mistaken for severe supraorbital neuralgia. The presence of a purulent discharge trickling over the anterior extremity of the middle turbinated body, combined with a certain degree of fulness and discomfort over the corresponding sinus, especially when we can exclude the presence of antral empyeina, points to the existence of frontal sinus disease. Transillumination with a small electric lamp is useful. The lamp (see Fig. 2), should be covered with a slightly projecting rubber cap. The examination should take place in an absolutely darkened room, or a thick black cloth (such as is used by photographers) should be thrown

over patient's and observer's heads, just as in the examination for maxillary antrum empyema If the lamp be placed in a healthy subject immediately under the suprepribital ridge or over the sinus.

the corresponding sinus will be illuminated as high up as the supraciliary ridge Where, howevel, pus is present an opaque area will be found. Catheter-

isation through the infundibular passage may be tried and the sinus washed out The method is however difficult and uncertain The illustration (Fig. 3), given below, shows the form of migating cannula in use for this purpose

To facilitate this proceeding the anterior extremity of the middle turbinated body may be removed order to open and drain the sinus an incision should be made at the inner and upper border of the supraorbital ridge. An opening sufficient to enable proper inspection should be made, and a free passage to the nose established by passing a trochar (guided by a finger in the nose) from the sinus to the middle meatus Collier strongly recommends a vertical incision over the

F12 2 - The centre of the affected sinus The edges of the incision should be

retracted, the periosteum raised, and an opening effected into the sinus by a specially constructed small trephine He advises also the passage of a lubber dramage tube into the corresponding nostril, and when

syringing has to be performed the stretching of the tube so that a fice passage may be obtained

In cases where both frontal sinuses are affected, the bony septum separating the two should be broken down and the whole thrown into one large cavity, while a sufficiently large opening is made into the nose to ensure efficient diamage It should be borne in mind that along with frontal sinus empyema there frequently co-exists disease of one or more of the other accessory sinuses

Embrema of the Marillary Simis -Purulent collections within the maxillary antium are in the vast majority of cases secondary either to diseased conditions of the nasal mucosa or to dental mintation Authorities are still at variance as to which of these two causes is the most frequent. Certain cases

are due to traumatism, eg, careless manipulation of the galvano-cautery within the nasal passages, while others result from such affections as measles, scarlet fever, syphilis, influenza, etc As a rule the affection is unilateral Lichtwitz has, however, recently called attention to the frequency of bi-lateral empyema, having in thirty-one cases (fortythree punctures made through the inferior meatus) found double antial abscess twelve times. Improvements in diagnostic methods have undoubtedly shown this affection to be more frequent than was formerly supposed to be the case. The flow of pus may be continuous, usually however, being intermittent, depending to some extent upon the condition of the surrounding parts and the position of the patient's head. The secretion is, as a rule, fortid. perceptible to the patient and either purulent, muco-purulent, or in rare instances caseous. The flow takes place from the region of the middle meatus over the anterior extremity of the middle turbinate body, at times, however, it travels backwards into the post-nasal space. In acute cases pain may be complained of In chronic cases there may or may not be a sensation of discomfort over the antial area. Occasionally a pulsating spot may be seen in the middle meatus, which by some is considered pathognomonic of antial empyema. Within the nose hypertrophic states of the nasal mucosa and polypi may be found. In some cases these are primary conditions, in others secondary to antial Other accessory sinuses may be affected at the same disease time MacBiide has called attention to the presence of a marked redness of the gingival mucous membrane, corresponding to the affected side

Great difference of opinion still exists as to the best means of establishing a correct diagnosis. The presence of a unilateral nasal discharge of fœtid odour flowing from the middle meatal region, and increased by a dependent position of the head, is always highly suggestive of antial abscess. Catheterisation through the natural opening, and washing out the cavity, are recommended as methods both of diagnosis and treatment. The ostium maxillare is, however, somewhat difficult to find. Injections of solutions of hydrogen peroxide have also been highly spoken of, the observer watching carefully for the characteristic bubbling and frothing which takes place when this drug comes into contact with pus. Transillumination, although not of absolute value, is a very important and to diagnosis.

To effect this an institument (Fig 4) consisting of a small electric lamp of about 4 candle power, fitted to a Turck's tongue depressor, is placed within the patient's mouth, the patient sitting in a room pre-

viously made quite daik, or a dark cloth being thrown over both patient's and observer's heads The electric current is now switched on, and in healthy subjects the cavities are immediately illuminated

This finds expression more especially in the presence of a bright semilune immediately under the lower evelid, and in the existence of

Burger emphasises the value of a bright pupillary glow subjective luminous sensations as being of almost greater diagnostic value than the pupillary glow empyema, this bright semilune is absent, the whole side of the cheek appearing dark. This opacity contrasts strongly with the bulliancy upon the opposite side. In addition, when the lamp is in the mouth, intia-nasal examination with the speculum shows in a healthy subject the inferior and middle turbinated areas clearly illuminated of antial empyema, however, the whole area of the cheek corresponding to the antium is in dark shadow, no bright semilune being seen either under the infia-oibital ridge of within the nose

In cases, however, in which there is only a small amount of pus within the antial cavity, there may be no obvious difference in the illumination of the face Davidsohn,2 who has specially worked this subject up, says that where only a small quantity of pus exists the antium may be illuminated by rays of light thrown from the turbinated bodies and adjoining nasal structures into the cavity on a level higher than that of the existing fluid, while the eye of the same side iemains daik

Reference to the illustration (Fig. 5), on opposite page, will explain this

The presence of growths within the antrum, excessive thickness of the bones, very small antral cavities, etc, may prevent the passage of lays of light, and so give lise to opacity below the eyelid, while, on the other hand, asymmetrical states of the hard palate, highly arched high palates, abnormalities in the size and shape of the antium, the consistency and extent of the fatty layer of the orbits, and the physical condition of the bulbus oculi (Mygind), may prevent the eye from being illuminated The transillumination test is therefore not to be solely relied upon, for in a given case opacity may exist without the presence of an empyema, although an empyema cannot exist without the presence of a suborbital umbra In those cases, where, with a unilateral nasal



discharge coming from the region of the middle meatus, no bright semilune is found under the corresponding eyelid, the chances are

A, Antrum B, Eye C I, Inferior turbinated body C M, Middle turbinated body S L, Ethmoidal cells The dotted lines represent the rays of light proceeding from an electric lamp placed in the mouth Upon the healthy side—the unshaded side the rays of light are able to pass directly through the antral cavity and hence illuminate the orbit, producing a well marked pupillary glow Upon the affected side the rays of light proceeding from the lamp in the mouth are unable to pass through the layer of pus in the antral cavity, and hence the orbit remains dark and there is no pupillary glow. Some of the rays, however, which pass directly up into the corresponding nasal passage impinge upon the turbinated bodies, and are thence deflected across the antral cavity on a level higher than that of the contained fluid, and consequently are

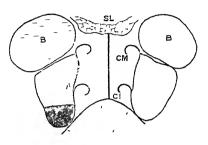
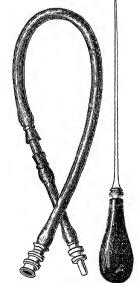


Fig 5 (After Davidsohr)

able to produce a moderate amount of infia-orbital translucency. Hence, in a case in which a moderate degree of infra-orbital translucency is present, but in which no jugillary glow exists, the inference may fairly be that the antrum contains fluid, e.g., pus, although the amount may be small

highly in favour of the presence of an antial empyema. The only re-



and Cannula

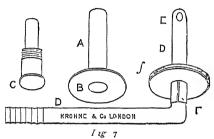
liable diagnostic test is the puncturing of the cavity and the appearance of pus Exploratory puncture may be made either through the alveolar margin, or through the lateral nasal wall. To puncture through the external wall of the nose, the mucous membrane should be well painted with a 10 per cent. solution of cocaine

A Lichtwitz's tiochai (Fig 6) is now thrust through the bony parietes of the middle meatus in a direction slightly downwards and outwards Pus in the cavity will now flow out through the cannula, or a stream of some antiseptic fluid may be injected when the pus, if present, will be found to flow into the region of the middle meatus

The treatment of acute or chionic cases of antial empyema resolves itself into affording some proper means of egiess for the con tained purulent exudation, in other words the establishment of efficient surgical drainage

Haitmann and Stoick advocate washing Fig 6-Lichtwitz's Trochar out the cavity per vias naturales, and in oide to simplify this Heryng has suggested removal of the whole or part of the middle turbinated body. An opening may be made through the alveolar margin (if necessary after withdrawal of a tooth), the cavity washed out, and a drainage tube inserted

The accompanying illustration (Fig. 7) represents the form of drainage tube and impating cannula, which the writer has of late used with considerable success.



The antial tube A is passed into the alveolar opening, the flange B being subsequently ittached to a dental plate C is a sciew plug, which is mide to project sufficiently far down to enable the ject sufficiently fai down to enable the patient to readily grasp it between the thumb and forefinger when required to be removed, but not so far as to cause the teeth of the lower jaw to touch it when the jaws are closed. The tube is made of silver, and is gold-plated.

D is a silver rectangular cannula, of such a size as to accurately fit the tube.

A its upper extremely E is perforated.

such a size as to accurately fit the tube A lts upper extremity, E is perforated by three foramina. F is a movable platform, carrying a thick lubber washer, f lhe distal extremity of the cannula is in communication with a glass (containing the fluid for irrigation) by means of a long rubber tube. When in use the screw-plug C is removed, the fluid from the reservoir is sucked through the cannula until a syphon action has been established. Temporary pressure is then made upon the rubber tube just at its attachment to the cannula. The cannula is now inn up inside the antral tube, and the platform B laised so as to abut accurately against its flange. The patient's mouth being now closed upon the cannula, the head is bent forward, and the pressure upon the rubber tube taken off. The syphon action is thus at once re-established, the irrigating fluid flowing from the reservoir into the antium, and out through the corresponding nasal passage. In this way thorough cleansing of the cavity may be secured, and can be conducted with ease by the patient. can be conducted with ease by the patient

An opening may also be made into the cavity through the canine fossa, an opening of such a size as to permit the introduction of, and exploration with, the finger

According to Robertson<sup>3</sup> this method is by far the most satisfactory. Under chloroform an incision is made at the junction of the cheek and gum down to the bone over the canine fossa. The periosteum and soft parts are cleared away with an elevator to the extent of the superficies of a shilling. With a chisel an opening is made large enough to admit the finger. The cavity can now be examined with the electric search-light. A drainage tube is then placed along the floor of the cavity (the opening being made flush with this) and retained for a few days, when a lead spigot is inserted and retained as long as is necessary

The cavity may also be opened through the inferior nasal meatus, as originally suggested by Mikulicz Scanes Spicer4, at the Bristol meeting of the British Medical Association, recommended an opening being made through the canine fossa according to Robertson's method, and one or more large perforations through the nasal wall by means of Klause's trochar In this way not only is there an opening made in the anterior wall, but a permanent accessory ostrum maxillare is formed in the inferior meatus. The antium and nose are irrigated with boracic lotion and the cavity of the antium packed with creolin gauze for forty-eight hours, the gauze being made to tightly fit and distend the bucco-antial opening until the tissues around are matted together and the passage established After forty-eight hours the gauze is removed, and no form of mechanical drain is used. Free inigation is practised thrice daily with a Higginson syringe, and in addition the patient is instructed to do two things, first, to frequently blow an through the antrum from the nose to the mouth, and vice versa, and also to pass some antiseptic lotion from the mouth through the antrum to the nose The natural opening may be enlarged either by means of the galvano-cautery or by some suitably made drill This is, however, a method seldom practised, because it is difficult to perform. and also because the opening not being at the most dependent point diamage is imperfect

Suppurative Disease of the Ethmoidal Cells usually occurs in consequence of a previous catarrhal illimitis, or as the result of occlusion of the ostium ethmoidale from the presence of nasal polyprority or hypertrophic illimitis. It occurs also as a complication of facial erysipelas, or in conjunction with suppurative disease of other nasal accessory sinuses, e.g., maxillary, frontal or sphenoidal. Syphilitic affections of the nasal framework are also frequent exciting causes. The readiness with which the bone is affected and the proximity of the ethmoid to the base of the brain render this affection a peculiarly dangerous one

Pain referred to the root of the nose radiating outwards along the infia-orbital ridge is a common symptom. The presence of a purulent discharge from the middle meatus is an early and constant sign. The discharge may present anteriorly, or may be seen at times on rhinoscopic examination reaching into the post-nasal space. Owing to the destruction of the olfactory cells the fector of the discharge is not so annoying to the patient as in cases of antial abscess. Besides the presence of discharge in the middle meatal region rhinoscopic examination usually shows the ethmoidal cells to be distended to a greater or less degree. Where marked distension has taken place the os planum of the ethmoid is pushed outwards into the orbital cavity, producing such ocular symptoms as exophthalmos, diplopia, narrowing of the field of vision, etc. In addition, masses of polypoid granulation tissue may be seen in the middle meatus. Examination with the probe frequently reveals the presence of bare and carious

#### ENCEPHALITIS.

Synopsis — (Vol 1894, p 240) Crocq applies 6 Leeches behind ear and R. Calomel, I grm, Aloes, 30 grms, Sugar, qs M ft pulv 11] Sig — I every two hours Later, Iodide of Potassium is administered and the leeches removed

#### ENDOMETRITIS.

Gonorrheal -- Lantos z gives good advice as to the case with which uterine therapeutics must be applied in cases of gonoriheal When the uterine cavity is clearly involved, physician must at once set to work to cure it lest the disease spread to the tubes Lantos here, however, warns us not to be too The hasty use of the Curette, or even of Carbolic Crystals. Solid Chloride of Zinc, and other powerful caustics, has set up the gravest complications Even more gentle intra-uterine medication is perilous when the appendages are already involved in the infectious inflammatory process. Hence, should there be the least tenderness in either lateral formix the patient must be kept at rest for a few days, waim injections, etc., being administered Whenever the condition of the genital tract shows that the endometrium may be safely treated, a Playfair's probe dipped into a I per cent Solution of Sublimate should be introduced into the uterine cavity. A still better method is the washing out of the uterus with a I per cent Chloride of Zinc solution by means of a double current catheter. When the cervical canal is made sufficiently wide the uterus must be plugged with iodoform gauze

Sentle—Skene 2 points out the resemblance borne by this affection to incipient carcinoma Discharge is the first symptom, together with pain and general constitutional disturbance, if the cervix is obstructed The discharge is sero-purulent, less glutinous than that of leucorihoea, and microscopic examination is necessary to differentiate it from that of specific disease and carcinoma. Gastric disturbances and a div bionzed skin often impait a cachectic appearance suggestive of malignant disease From adenoma senile endometritis is distinguished by the absence of metionihagia. If the disease does not extend beyond the ceivix Astringent Douches are efficient treatment, but should the whole of the interior of the uterus be involved the free application of Iodoform is necessary The connection of displacements of cervical stricture is important if these conditions are present, and for the latter gradual dilatation and drainage are required, avoiding rapid dilatation on account of the ease with which the senile uterus may be torn.

REFERENCES — "But. Med Jouin", 2" Amer Jouin of. Obstet," April, 1894.

Synopsis — (Vol 1894, p 240) Drainage of uterus with silkworm gut or india-rubber tubes. For the latter a tent or dilator is required, and vagina is plugged with Iodoform Gauze daily after uterine injection. For cervical endometritis. Scraping of endometrium and Plugging with iodoform gauze.

## ENTERIC FEVER. (See also "Fever" and "Typhus")

Synopsis — (Vol 1894, p 242) Cold Baths (Osler) Eliot gives Calomel, 10 grs, every other day until four doses have been taken, and a mixture containing B. Ac Caibol 3j, Tinct Iodi ad 5iv. Sig —gtt 4 in a wine-glassful of water 4tis horis. Should the bowels not move after the calomel, Sulphate of Magnesia may be used in diachim doses. Werner advises 1% Chloroform Solution, \$\frac{7}{2}\sigma\text{every one of two hours night and day. Richardson advises B. Methylene Bichlor, \$\frac{7}{2}\sigma\text{look}, \frac{7}{2}\sigma\text{look} hours high tand \$2\sigma\text{look} hours hours high tand \$2\sigma\text{look} hours high tand \$2\sigma\

#### ENTERITIS.

German Sée lays down rules for the treatment of the troublesome mucous diaithea which complicates peri-uterine inflammation three indications are to empty the bowel, to allay the pain, and to check fermentation. In cases in which the complication is not very severe a tablespoonful of Linseed should be taken three times a day before meals The seed should first be soaked for a few minutes in a quarter of a tumblerful of cold water Sée has known this treatment answer in thousands of patients, and there seems to be no fear of impaction of the highly soluble seeds in the cacum or appendix. Should the bowels fail to act, a pill, consisting of I giain of more of solid extract of Hydrastis to 3 grains of powdered senna leaves, taken three times daily after meals, will prove a good aperient, which will not prevent the patient from attending to her social and domestic duties Saline and mineral water purgatives are, in Sée's opinion, huitful, being followed by obstinate constipation Occasional doses of Castor Oil are needed, and the American practice of giving large doses of Olive Oil is often beneficial in muco-enteritis. For calming the pain morphine and atropine should be avoided, as they cause constipation and loss of appetite, the latter insuring invalidism by impairing The bromides of potassium and sodium unitate the stomach Bromide of Strontium of Calcium in about 20and cause debility grain doses freely dissolved in water and taken during meals is very efficacious in the muco-enteritis of uterine disease. To avoid any chance of debility being caused by the biomide, about 10 grains of Chloride of Calcium added to 10 of Bromide of Calcium should be substituted for the above prescription Menthol dissolved in alcohol and water is the best remedy when very severe pains set in. As to the neutralising of fermentation, flatulence is best cured by Phosphate of Soda mixed with Salicylate of Soda, or by doses of Borax. Sée has little faith in benzonaphthol either for the muco-enteritis here considered, or for any other kind of gastro-intestinal mutation

Revilliod<sup>2</sup> has had good results in the treatment of membranous colitis by the use of copious injections containing Bismuth. The insection he uses is as follows Subnitrate of bismuth, 10 parts, salicylate of sodium, 10 parts, mucilage, 500 parts. The quantity prescribed is & a litre The colon is first of all cleared out with an enema containing Castor Oil or Ipecacuanha, followed if necessary by an injection of a solution of Boric Acid. When the bismuth injection is to be given, the patient is placed on his back with the buttocks a little raised, and is directed to retain the injection for twenty-four hours if possible, if this cannot be done a smaller quantity must be used for the injection As a rule, the bismuth is not to be seen in the first stools passed It appears after a few days as earthy lumps, and the stool in which it is contains no mucous scraps Slight constipation is produced by the treatment but no other inconvenience ment was also successful in chionic dysentery, and in other conditions in which there was reason to suspect ulceration of the large intestine The mucilage prescribed is "de pépins de coing," quince pips

REFERENCES — "Bit Med. Journ," 2" Lyon Médical," Dec. 24, 1893

#### ENURESIS.

J Madison Taylor, MD, Philadelphia

MacAlister<sup>\*</sup> gives the treatment of an obstinate case which had defied all former treatment He prescribed.—

B Liquons Atropinæ Sulphatis 5jss | Syrupi Auiantii ad 5j Liquons Strychninæ Hydiochloratis in xlv

Sig —5 drops of the syrup to be taken in a tablespoonful of water at 9  $\,$  p m , to be increased as directed

The directions were That no drink should be taken after 6 pm. that the drops should be taken at 9, that the boy should go to bed after emptying the bladder at 10, that he should be wakened to pass water at 12 when the parents retired, and again at 6 am when the servants rose 5 drops of the syrup were to be taken nightly for three nights, 10 drops for the next three, 15 for the next three, and so on until in the fourth weeks 30 drops were taken. During this time no "mishap" occurred, there was considerable dilatation of the pupils, and some dryness of the tongue and throat, but no untoward symptom. The dose was continued at 30 drops for a week, when enures again took place. The dose was again increased every three nights by 5

drops at a time until 50 drops (representing about  $\frac{1}{10}$  grain of sulphate of atropine) were being taken nightly. Accommodation at this time was so affected that the boy could not see to write, though he was perfectly well in other respects. The dose was increased during the three weeks up to 60 drops, and then decreased to drops every three nights until after nine weeks' treatment it was discontinued, and the trouble never returned.

Where the incontinence seems to depend upon atony of the sphincter, **Electricity** may be used, the negative pole being placed in the urethia and the positive pole over the pubes. Very feeble currents may be passed for from one to five minutes once a week. Generally twelve to fifteen applications of this kind suffice. It is also well to administer **Strychnine** carefully in such cases, or the following may be used.—

Reduced Iron gr v | Powdered Geranium gr v | Reduced Iron

Make into twenty pills and take I to 3 a day.

Or we may prescribe -

By Ergotin gr viij | Powdered Aloes gr ss
Take i pill once or twice a day

In those cases where there is irritability of the bladder, the treatment with **Belladonna** is applicable, and the following may be used --

By Ext of Belladonna gr. 11] | Castor gr xv | Camphor gr xv |

Make into twenty pills and take I at night.

On this prescription may be used in the form of a suppository. In still other instances, **Bromide of Potassium**, in the dose of 30 grains at night, may be employed, or 10 to 15 grains of **Antipyrin**.

Or the following prescription3 may be used .-

B. Tincturæ Belladonnæ
Tincturæ Cubebæ
Tincturæ Cubebæ
Tincturæ Nucis Vomicæ

Tincturæ Cascarillæ

f5ij

Sig —12 drops at bedtime for a child from seven to ten years

REFERENCES — ""Therap Gaz.," Aug, 1894; 2" La Tribune Médicale, May 26, 1894, 3" Med Press," Feb 21, 1894.

## ENURESIS IN CHILDREN (Nocturnal).

E. Hurry Fenwick, FRCS.

Fieud states, on examining children affected with nocturnal incontinence of urine, he discovered that about 50 per cent of them exhibit an associated symptom that has not previously been described,

namely, a hypertonic condition of the ciural adductors To elicit the symptom the child is seated with its legs on a table, its feet are then grasped, and an endeavour is made to separate them as widely as possible in a horizontal direction. In a typical case the adductor spasm at first is considerable, but soon yields, on releasing the feet the legs spring back into contact Spasticity also is found in the quadriceps extensor on attempting suddenly to flex the knee resistance here again is very pronounced at first, but quickly subsides If flexion be then repeated only slight extensor tension is observed The deep reflexes are moderately increased in these cases, the muscles are firm and well developed, gait is natural and no other abnormality is present in the affected limbs. To a certain extent the spastic condition can be overcome by voluntary effort on the part of the patient, for instance, if the child be required to relax the adductors, rigidity temporarily disappears from them, although it continues in the extensors. As the phenomenon occurs in boys quite as frequently as in girls, and very rarely exists in normal children. Freud considers that it is independent of emotion, such as fear or shame He has been able to exclude spastic paraplegia and epilepsy from all his cases They have not shown any fixed relationship between the intensity of the hypertony and the degree and duration of the incontinence. Often he has seen the spasticity persist after the enuresis has been cured. He suggests that excessive spinal innervation of the detrusor and of the crural muscles may be a factor in the combination of symptoms

REFERENCE — "Bit Med Jouin" Epitome, p 93, Dec 9, 1893, "Neurol Central," Dec 21, 1893

Synopsis — (Vol 1894, p 247) Atropine and Strychnia along with of alternated with Ergotin or Tr Cantharides Hyocine Hydrobromate is sometimes better than Atropine, and is well combined with Camphor Monobromide. To steady and regulate vascular conditions, Digitaline, Strophanthine or Sparteine are valuable

#### EPIDIDYMITIS.

242

Rollet' holds that when epididymitis occurs as a complication of gonorthea, irrigation of the entire urethra should not be intermitted, since otherwise there is danger of the second testicle becoming involved. The best treatment, in his opinion, is Salicylate of Sodium,  $1\frac{1}{2}$  drachms daily, or Tincture of Pulsatilla, to drops three times daily. The action of this agent is not as constant as that first named. Refrigeration is the best means of allaying pain, this is produced either by application of ice to the inflamed paits or by the spray of Chloride of Ethyl The latter must be used with caution, on account of the sensitiveness

of the skin of the scrotum Reclus recommends the application of compresses of warm water

M Balzer and M Lacour stated that they had obtained excellent results in the treatment of blennorihagic epididymitis with Guaiacol. On the skin of the inguinal region, pure guaiacol could be applied, on the scrotum it was better to employ an ointment of from 2 to 5 parts of guaiacol to 30 of vaseline. One of the first effects of the application of this ointment was a rather sharp burning, lasting for about ten minutes, then the patient felt a sensation of heat, and almost immediately the pain disappeared, at least for three or four hours, and sometimes it did not return. Ordinarily it was necessary to make two applications on the first day, but after the third day there was no longer any pain. The applications were then discontinued, for they did not seem to exert any very decided resolvent action upon the inflammatory infiltration of the epididymis.

Scharff3 employs Electricity, even in the acute stage, applying the anode to the lower part of the scrotum. The patient being in the doisal position, an electrode of 50 to 60 cm, and with a maximum current of & ma, is employed, the duration of the application being three minutes on the first occasion, this is afterwards increased to five and ten minutes, the increase being very gradual. The weak constant current thus employed should be carefully gauged with a sufficiently sensitive galvanometer, and the current closed insensibly with the aid of a theostat. No unpleasant sensations should be thus produced, but the patient will subsequently on palpation be able to observe a considerable diminution or total disappearance of the tenderness which had previously existed While in the same position a suitable suspender is applied, and the patient then allowed to walk about. Towards the seventh day the current can be increased to 3 m a, the same electrode. however, being still used for a few days, when it can be somewhat incleased in size The swelling at first reappears to some extent after each application, but usually diminishes gradually in three or four days The cathode is placed above the groin and on the abdominal wall By this treatment rest in bed can usually be dispensed with, the other advantages over the older methods being rapid and marked relief of the pain from the first, and greater rapidity in the disappearance of the swelling

REFERENCES — 1" Med Piess and Circ," May 23, 1894, 2"L'Union Mcdicale," April 10, 1894, 3"Centralb f Kiankh d Harnund Sex Organe. 1," 1894

Synopsis — (Vol 1894, p 249) Externally, Nitrate of Silvei Ointment, I in 10

EPILEPSY. Allan McLane Hamilton, M.D., New York.

Miller reports the case of an epileptic man which was undoubtedly due to the contraction of the flevor muscles of the right arm and palmar fascia of the hand. Besides this there was a preputial adhesion. When the latter was slit up and the palmar fascia stretched, the hand being subsequently put in a splint, he recovered completely and the attacks at once entirely disappeared.

Bromoethylformine, a derivative of formol, is used by Baidet<sup>2</sup> in doses of 30 to 60 grains. It has been found by Féré to be an excellent substitute for the potassium salt, especially where there were idiosynciasies upon the part of the patient against the latter. Its advantages are that it is not followed by any eruption, and, in fact, when given in combination with bromide causes a disappearance of existing acne.

Hein,<sup>3</sup> at a meeting of the Ophthalmological Society, 1893, reported a case where epilepsy had been cured in a hypermetropic patient by the use of proper reading glasses for the relief of the strain of the ciliary muscle

Among the new vegetable remedies may be mentioned the tincture of simulo, hydrastin, hyoscin, duboisine Simulo, which is the fruit of a South American plant, Capparis corriacea, is extensively used in Peru and Bolivia as an anti-spasmodic, and has been administered in doses of 3 to 5 grains daily in seven cases of epilepsy by Hale White. of London, with gratifying results Hyoscin has been used by Nagy4 in epileptic attacks of a hysterical form, and this author has emphasized the fact that it never produces grave intoxication, and can be given for a long time without losing its power. He uses it during the paroxysms in doses of I milligramme given subcutaneously and Gianelly have treated epilepsy by injections of from \$ to 13 milligrammes of the neutral Sulphate of Duboisine inserted at the shoulder or abdomen The local effects of the injection are disagreeable, as they are apt to produce more or less pain which lasts sometimes twenty four hours In violent attacks the effects were best shown, but the most important results were obtained in cases of psychic epilepsy where the amelioration was rapid and lasting

REFERENCES — "Edinbuigh Med Jouin," July, 1893, "Les Nouveaux Remèdes," April 24, 1894, "Brit Med Journ," Sept 30, 1893, 4" Croosi Netilap," No. 41-44, 1893, 5" Riforma Medica," No. 27, 28, 1894

[Editorial

Dai by states that in cases due to trauma after the use of the trephine or scalpel, the patient should be kept on medical treatment for at least two years to prevent a return of the trouble. It is in this class of cases that we may reasonably expect good results. Bromide of Potassium,

in full doses, has given the best results, but of late a solution of **Bromide of Gold** and **Arsenic**, given in 5 to 10-drop doses, has given satisfaction. The patient should, if possible, be induced to live a temperate and systematic life, sleeping regularly, eating moderately, and keeping his digestive and excretory organs in a healthy condition. Especially is it necessary for him to abstain from the excessive use of tobacco and alcoholic stimulants.

Synopsis — (Vol 1894, p 249) Cold Shower or Sponge Baths daily Warm Wet Compresses to head and genitals if brain is anæmic, or Cold Compresses if head is congested. Optum in progressive doses (Flechsig) for six weeks, followed by Bromide of Potassium in 7½ gramme doses daily, and gradually diminished. Fere uses Arsenic, Naphthol and Bismuth Salicylate for bromide acne. Nitro-glycerine, gr.  $_{100}$ , hypodermically (Bates). R. Sodii Biborat, gr. 200, Sodii Bromid, gr. 50, Syr. Simp, 51, Aq ad 5x. Sig—51 t. d. ex. aq. p. cib. Alkaline Baths daily, and inunction with Vaseline relieve crythema due to boiax. Duboisine coo4 gramme, hypodermically (Albeitoni). Pasteur's Anti-rabid Treatment Mixture of the three Bromides—2 of Potassum, 2 of Sodium, and 1 of Ammonium, which may be given effervescing by means of Carbonate of Sodium and Citric Acid. Intolerance of bromide may be overcome by small doses of Iron or Arsenic and attention to the general health Chloralose may be used up to 22 gr. doses (p. 13)

### EPISTAXIS.

Kohn' advises that in the case of a patient giving a history of repeated bleedings without any sufficient exciting cause, a most searching examination of the nose and naso-pharynx is essential, if an erosion of varicosity be found, as it frequently is, on the lower anterior portion of the cartilaginous septum, this should first be dired with absorbent cotton and then cauterized with a saturated solution of Chromic Acid, as advised by Bosworth and Biesgen. Chiaii claims to have found such a lesion in seventy out of eighty-one cases of habitual nose-bleed, and advises the Galvano-cautery beyond all other The writer has seen the galvano-cautery cause nose-bleed so frequently that he hesitates to recommend it in these cases to the general practitioner. Angiomatous growths have been the cause, in some cases, of such profuse and repeated hamorrhages as to bring the patient to the verge of syncope, then radical destruction by the flat galvano-cautery is effectual in checking the recurrence of bleeding Tumours, vascular polypi, adenoid vegetations, enlarged tonsils, if found in a patient suffering from habitual nose-bleed, must be removed

There are still some cases in which the bleeding occurs spontaneously, without any lesion being discoverable. These occur more especially in growing children, who otherwise are in good health **Ergot** has been recommended as a preventive in these cases by

Morell Mackenzie The writer has found in the fluid extract of Hydrastis Canadensis a sovereign remedy in these cases. It is administered internally in 10-drop doses, in water, every two or three hours. The hydrastis is prescribed, be it understood, as a preventive for the patient who at the time of his visit is not bleeding from the nose, but who gives a history of repeated bleedings. A 5 per cent solution of the fluid extract of hydrastis in water may be used as a spray for the nose; it may also be used with liquid vaseline, albolene, or kindred preparations, as a spray or brushed into the nose. Its only drawback is, that it has a tendency to cause constipation, but this may be combated by mild salines.

It has seemed to the writer that the simple rules for the stoppage of capillary hæmorrhage are applicable to these cases, the object is, as in hæmorrhage, to secure coagulation at the point of bleeding and to keep the clot in place

The first rule, therefore, is to place the patient, and more especially the bleeding part, at rest, nervousness or fright should be quieted with assurances that there is absolutely no danger, the patient should sit upright in a chair, the head thrown slightly backward, all bands about the neck should be loosened, in order that the circulation may be unimpeded, the patient should then open the mouth as widely as possible, and should breathe through the mouth only until bleeding ceases. Blowing the nose, hawking, and spitting must be strictly interdicted. In following the instructions thus far given, the interior of the nose is placed at rest and the first indication is fulfilled, whereas, if the patient snuff up cold water, wipe or blow the nose, he displaces clots and favours the continuance of the hæmorrhage.

The second rule is to tell the patient, his mouth being kept wide open, to breathe more deeply and more rapidly than he normally does, the respirations may be increased to 30 per minute, the immediate effect of this increased oxygen supply is to increase the force and frequency of the heart's action, and presumably to increase the amount of blood in the pulmonic circulation at the expense of the cerebial, whether it be due to the more thorough equalization of the blood-supply to the body and head, or to the increased muscular action incident to the increased respiratory effort, it has seemed to the writer that the nasal mucous membrane is depleted to some extent by this procedure

As soon as the patient tiles of the rapid breathing—which he does very soon, perhaps after thirty respirations—he may breathe normally for a few moments, when, if the bleeding has not ceased, he is told to breathe rapidly again; the mouth is to be kept open constantly, and any blood flowing into the pharynx is to be swallowed

The final rule is to tell the patient to enunciate the broad vowel "A" with each expiration, the soft palate is thus brought in contact with the posterior wall of the pharynx during each expiration, the posterior naises are separated from the pharynx, and the blood is prevented from flowing into the exophagus during the expiratory periods

Should these procedures not prove sufficient, the insufflation of **Tannin** may be tried, and if this fails, the tamponing of the nostril with long, narrow strips of **Iodoform Gauze**, dipped in the **Glycerite of Tannin**, with the ends hanging out of the nostril. It is needless to dwell on the advantages of a method of arresting nasal hemotrhage in which no drugs of ristruments of any kind are necessary

Cozzolino<sup>2</sup> says that in persons subject to epistaxis, the bleeding always takes place from the right nostril, except in those who are left-handed. The seat of the hamorrhage is generally the anterior cartilaginous portion of the septum, the starting point often being a minute exceptation caused by the finger nail. Cozzolino applies a solution of i gramme of Trichloracetic Acid in 30 to 40 grammes of sterilised water directly to the bleeding point by means of a piece of cotton wool fixed on the end of a probe. To prevent smarting a little Hydrochlorate of Cocaine, pure or carbolised, or, better still, Tropacocaine, may be added to the solution. The reaction caused by the acid is short, the eschar soon separates, and the little wound quickly heals. Cozzolino says perchlorace of non should, for hamostatic purposes, be altogether replaced by trichloracetic acid in solution (1 in 80 or 100), which, besides stopping bleeding, has distinct antiseptic properties.

Hutchinson<sup>3</sup> places patients with obstinate nose-bleed in the sitting posture and with the feet in a deep pail of water as hot as can be boine. He says this never fails to airest the hæmorihage.

Plethoric cases 4 are relieved by -

R. Tinct Aconit gtt viij | Liq Ammon Acetat 5j
M Sig —Teaspoonful every half-hour

REFERENCES — ""Therap Gaz," Aug 15, 1894, ""But Med Jouin", "Med Record," May 26, 1894, "Ibid, Jan, 1894

Synopsis —-(Vol 1894, p 253) Citric Acid or Lemon Juice introduced into the nose Inhalation of 10% Antipyrin Solution, or thrown up by a syringe

## EPITHELIOMA. (See also "Cancer")

Synopsis — (Vol 1894, p 254) Darier's treatment, which see Caustic Potash used by Robinson for small tumours of forehead, cheek, lips and in early epithelioma of lips Chloride of Zinc Bougard's Paste R' Wheat Flour, Starch Powder, aā 5j, Powd Arsenious Acid, gi viij, Red Sul-

phide of Mercury, gr xl, Chloride of Ammonium, gr xl, Bichloride of Mercury, gr iv, Crystals of Zinc Chloride, 5j, Boiling Water, 5jss Marsden's Paste Arsenious Acid, Powdered Acacia, equal parts rubbed well together with enough water to make a thick butter-like paste Pyrogallic Acid (5j to 5j Vaseline) Lassar advocates Arsenic internally Inglis Parsons uses Electro-cautery

#### ERYSIPELAS.

T Colcott Fox, MB.

Anders formulates the following conclusions -

(1,) Proper attention to the diet is of paramount importance, (2.) Stimulants are rarely necessary, if the dietetic requirements are fully satisfied, but may be freely exhibited when indicated, (3,) Of drugs, Iron has been widely tested and found to be of great value, though it matters little which salt or preparation is employed; (4,) Quinine, when administered with 110n, reduces the temperature, supporting at the same time the vital functions, (5,) The use of antiseptics per os is to be recommended, (6,) Pilocarpine is in a small proportion of cases powerful to abort the affection To reduce temperature merely pilocarpine should be employed in intense pyrexia, particularly where the favourable morning remissions do not occur. (7.) The question of the local treatment of erysipelas has not yet been set at rest, but agents intended to exclude the air, and such as possess germicidal power, especially corrosive sublimate, are highly useful; (8,) That the erysipelococcus of Fehlersen, which is found chiefly in the more superficial channels of the conum, may be attacked directly by the Corrosive Sublimate Solution, when the latter is used after scarification. is quite probable, (9,) In erysipelas migrans the germicide should be injected beneath the skin, just beyond the edge of the part inflamed

The conclusions are illustrated by various recent papers. Thus Salinger speaks favourably of pilocarpine given so as to produce the full physiological action of the drug. G. W. Barr, who learnt the method from Da Costa, in 1883, administers it in a dose sufficient to produce a marked physiological action, (usually & grain) and repeats it in two hours, again in six hours, and finally in two hours more. The earlier the treatment is begun the better

Arnozan gives 4-giain quinine pills three or four times daily, according to the temperature, and applies over the affected surface the following ointment —

Labanowski piefeis the application of complesses soaked in a solution of sublimate one hundredth, as waim as can be boine, to pulverisations of similar composition.

Gaston recommends hypodermic injections of a 12 per cent solution of Garbolic Acid made as follows —

One syringeful is injected daily for three days in each area the size of the hand. He has repeatedly injected into four such areas at a time, but care must be exercised not to overdo this. Internally he administers at the outset Calomel followed by Epsom Salts in Senna Tea, and afterwards tincture of Perchloride of Iron every three hours till one ounce is taken. In some cases he adds ro-grain doses of Chlorate of Potassium.

Felsenthal gives Gluck's method as follows. The eigenpelatous area is carefully washed, and a large number of both superficial and deep incisions are made with a knife. Then the scarified surface is washed with an antiseptic, and the serous evidation pressed out with the sterilized hand. The part is then dried, rubbed with 60 per cent Ichthyol Ointment, and finally covered with the same ointment, cotton wool, and a gauze bandage. The dressing, is renewed night and morning

Lastly, we may notice some observations by Guimaid and Geley, on the antithermic action of ceitain alkaloids (cocaine, spaiteine, solanine, helleboine) applied to the skin. In some cases where the dermis is involved, such as in erysipelas, the action of the alkaloid is said to be remarkable. Sparteine thus applied had a very happy effect. Good results were noted also in measles, scarlet fever, erythema nodosum, febrile eczema, and small pox.

References —Audeis, "Therap Gazette," July 16, 1894, Salingei, Ibid, Maich, 1894, Baii, Ibid, May, 1894, Ainozan, "Aich de Méd et de Phaim Mil" No 2, 1894, Labanowski, "Aichiv de Méd Mil" No 1, 1894, Gaston, "Med and Suig Repoitei" Maich 24, 1894, Felsenthal, "Aichiv Kindeiheilk," B XVI, t 111-VI, Guimaid and Geley, "Acad des Sciences," Aug 6, 1894

Symopsis — (Vol 1894, p 256) Ichthyol Solution, Nitrate of Aconitin Solution ( $\sqrt{1}$ g gr in 50 M) 50 M in twenty-four hours given in divided doses Liquid Thiol, 40% watery solution, painted on five times a day Calomel, 10 grs internally, followed by Quinine, 10 grs, night and morning, with 8 to 15 grs Camphor in emulsion given in twenty four hours. White Vaseline painted on Gentle Rubbing for a minute twice daily with 1 and 2% ointments of Paro-chloro-phenol and Orotho-bromo-phenol Application of Essence of Turpentine, or painting with Guaiacol twice daily if temperature is high. Cold Baths. Painting liminentum Iodi round and beyond the affected area.

### ERYTHROMELALGIA.

Synopsis — (Vol 1894, p 259) Arsenic, Antifebrin The most useful drugs are Antipyrin and Morphia Faradisation has been successfully used

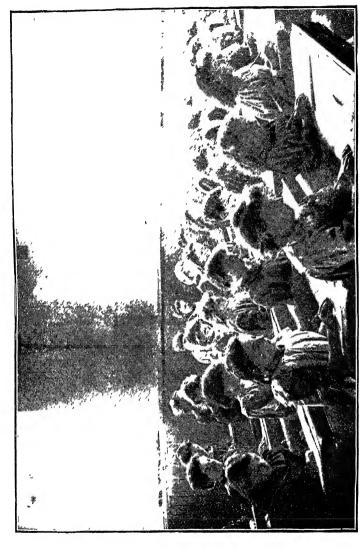
#### EXOPHTHALMIC GOITRE.

Synopsis — (Vol 1894, p 260) Intestinal antiseptics, together with Strophanthus Tincture Rest treatment

## EYESIGHT AND SCHOOL-LIFE. Simeon Snell, FRCS, Ed

There is, it appears to me, abundant and convincing evidence that the vision of children, which should apparently under normal conditions have remained good, is constantly deteriorating during the school period. The much larger number of children who are put into spectacles to-day than was formerly the case is no doubt an evidence of our expanded knowledge, but shows also a real increase in those requiring optical aid. The fact is, the eye is unequal to the task too often expected of it It is an ascentained fact that nearly all children at birth are hypermetropic, and in the course of growth and development evolution would bring these same eyes to be emmetropic, or in other words to have the normal refraction. The time was, when vision for distance was almost the only sight required, that for near objects being only occasional The savage is found in this state at the present time, and his keen vision for objects at, to us, almost surprising distances, is well known Civilisation bringing in its train the printing press, with its huge out-pour of literature, has changed the face of things. The hours that even little children spend over work close to their eyes, such as fine sewing, is perhaps almost bringing us to the opposite extreme—that the use of vision for near objects is becoming constant, and that for distant, occasional

The two means by which the eye accomplishes this close work are nearly allied, and both are muscular. When focussing is undertaken for a near object, convergence also goes with it. It is of importance to bear in mind that this act of accommodating is a muscular one, and with undue work, thing will ensue just in the same way as weariness and disability will result from an overexeited biceps. For our purpose at present it will be better to confine attention to the two broad divisions into which refraction errors are placed. Astigmatism, whether simple, compound, or mixed, falls towards one of these groups, and it is essential that its possible existence should be borne in mind, however low the degree when testing and prescribing glasses, for scholars. The normal or ideal eye is curiously of less frequent occurrence than is popularly



Group of Children with light falling from the left in the best position for work

supposed The refraction in new-born babes, as shown by the observations of Ely, Horstmann, and others, is generally hypermetropic As a result of growth and development, this condition alters and passes gradually into the emmetropic or normal state of refraction. This is certainly true of the lower degrees, but is less so perhaps of the high ones. Less frequently the early hypermetropic eye passes into myopia. Many eyes moderately used even with a fair amount of hypermetropia will get along with little or no discomfort. They will merely require glasses earlier than would otherwise have been the case. But given an amount of close work, reading, writing, or sewing, and especially if the nervous system is otherwise overdone, and the train of distressful symptoms is set going. A cause of the headache so often complained of by children is to be sought frequently in the conditions just mentioned.

Another point to be noted here bears upon this question of strain The ciliary muscle, after producing the alteration of focus necessary for close work, should, after the occasion for its use has ceased, relax, and pass into a state of rest. Not so always, however, with these hypermetropic eyes, for by no means uncommonly a kind of spasm or cramp results, and a fictitious nearsightedness is induced, and there is little doubt that many eyes neglected at this stage become almost imperceptibly myopic in reality Attention must be given to the refraction, and it is desirable, in all cases to estimate this under the influence of a myditatic, not only will our testing by this means be done more correctly, but the rest induced thereby in the ciliary muscle will be distinctly beneficial It is beyond the scope of this article to enter upon the question of the ordering of spectacles, and all that is necessary is to allude to the importance that astigmatism even of low degrees, of anisometropia, and of muscle conditions, bear to the relief of eye symptoms and headache

It is, however, to myopia that most of our remarks will be directed, that being the more serious condition as far as vision is concerned. Hypermetropia has been spoken of as congenital. Myopia is seldom so. It is sometimes present in very early life, but it usually makes its appearance about the eighth year. For our purpose it may be regarded as acquired, and the numbers of myopes are being constantly recruited by eyes which have passed over into this group from the hypermetropes. Several cases have been noted whilst under observation.

Myopia is seldom found in new-boin infants. As has been stated, the exact opposite is the case. There can be in my opinion no doubt

that during school-life eyes which previously gave no indication of its presence have become near-sighted. Further than this, it is beyond question that during the scholastic period too frequently the degree of myopia becomes aggravated. The long continuance of close work with imperfect light, a stooping posture, and it may be with brain and body fatigued, are among the causes that lead to this end. It must further be remembered that the extra-focussing of the eyes and the continued convergence necessary for this close work not only aid in bringing about myopia, or increasing it when present, but that the progress of the short-sightedness demands itself still further convergence, and therefore the condition once present, reacts upon itself.

It is very necessary to combat the too popular impression that to have myopia is rather a blessing than otherwise is perhaps greatly due to the fact that those possessing very weak and stationary degrees of myopia are often afforded a longer period without the requirement of glasses for reading than their emmetropic fellows There is a good deal to be said for regarding the invopic as a pathological eye Donders held this view, and Di Risley, of Philadelphia, is especially strong in regarding these eyes in this way. Mr Priestley Smith expresses himself in these words "Myopia is always a defect, often a disease It is entirely incurable, but largely preventable Its progress can be, and often is, accelerated by improper use of the eves, and retarded by judicious interference" It must be borne in mind that progressive myopia is very often associated with organic The choroid is specially pione to be affected, and the region of the yellow spot often suffers As the axis of the eye extends backwards the choroid becomes atrophied and shows itself as a "crescent" at the side of the disc Among other conditions may be mentioned disturbances of the vitieous and detached retina

There are various causes, in addition to what will be said about the conditions of school life, which appear to predispose to the development of myopia. Heredity is one of these, the formation of the orbits, a difference between the eye centres and a condition inherent no doubt in the structure of the eye itself, which more readily allows of a yielding of the tunics and the prolongation of the axis backwards, must also be mentioned. It has been established that children entering school with healthy eyes have become short-sighted, and that the proportionate number of the scholars affected increases as we ascend in the classes and also in the grade of school. Cohn, of Breslau, who was not only one of the first but has been one of the chief workers on this subject says. "The frequency

## PLATE III



Group of Children writing with light falling from the right, throwing into shade the spot that should be illuminated

of myopia is shown by the following statistics. I noted in five village schools, 14 per cent myopia, in twenty elementary schools, 67 per cent, in two higher schools for guls, 77 per cent, in two middle schools, 103 per cent, in two real schools, 197 per cent, in two gymnasia, 262 per cent, that is, out of 10,060 children, 1004 were myopic, or 99 per cent." From this he points out that in village schools the percentage of myopia is very low, while in the town schools the number of short-sighted scholars constantly increases with the grade of the school, from the lowest to the highest Moleovel in every school the number of shortsighted children goes up from class to class The evidence set forth by statistics demonstrates that near-sightedness is induced during the whole period of school-life, and that from the observations made in all parts of the world, it is correct to say, as Cohn does, that in the whole civilised world the number of shortsighted scholars increases with the requirements of the school and the rank of the class Our space compels omission of any further reference to the excellent work which has been done in many countries by many observers

We can now pass to consider the influences which act injuniously on the eye-sight of school children, and to discuss the means by which these conditions should be combated

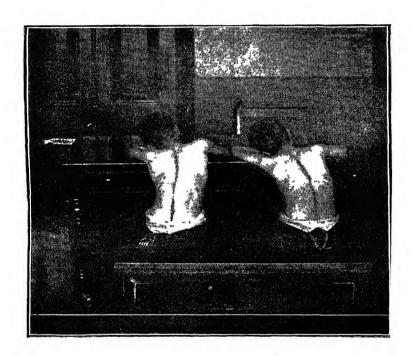
Lighting of Schools.—Good lighting is of prime importance. An evil which it is necessary to avoid is the too close approximation of the scholar to his book, and an indifferent or bad light necessitates a nearer approach to the writing or reading. But while there should be good light, and plenty of light, it is of equal importance that it should be light properly directed. To have a room well lighted, as far as quantity goes, will be of no avail if the scholar is placed so that he reaps no proper advantage from it, but is on the contrary so situated that the book on which he may be occupied is thrown into the shade and a shadow cast on the part he is reading. Lighting from the roof would be perhaps an ideal method, but as this would necessitate one storey buildings it would be well-nigh impossible in towns

The surroundings of a school often interfere with its proper lighting, in spite of the best constructed and the most correctly placed windows. Cohn showed that the narrower the street in which the schoolroom was situated, the higher the opposite houses, and the lower the storey in which the lessons were given, the more numerous were the cases of myopia among the elementary classes. A French law requires the top of the window to be at

a distance from the floor equal to two thirds of the breadth of the 100m, and a Fiench commission also recommended that from each desk in the school oom there should be visible a strip of sky at least thirty centimèties, measured from the top of the window Light from the left is to be preferred, and the best position for a child or any adult is so that the light falls from the left above and somewhat behind (*Plute II*) That from the right is objected to, as from the position of the right arm on the desk the point to which the gaze is directed is thrown into shade, and this is the place where a good light is requisite (Plate III) Light from behind is insufficient, unless there is good side-lighting From the front it will be dazzling to those in the front row and insufficient to those further back. The question of lighting from right or left is often only a matter of arranging the seats for the children, and a teacher who is alive to the importance of these matters will soon set such a thing right. At the same time lighting from the right is preferable to insufficient light little space as possible should be occupied by divisions in the window, and, of course, the old manner of making the windows of small panes or ecclesiastical glass is to be condemned. The arlangement of the glass after the manner that a photographer has his windows constructed has been suggested as suitable for schools Rooms devoted to study should be flooded with light in such a manner that the darkest place occupied by any scholar may have sufficient light even on a dull day. It has been proposed to estimate the amount of light by photo-meters There are, however, more practical and easily applied methods. It has been suggested (Strasburg Medical Report) that small diamond type should be able to be read at twelve inches, even by the scholars furthest away from the windows. Again, in some schools on the Continent scholars have ceased to work when darkness was sufficient to prevent the reading of Snellen's twenty type at twenty feet

All study that can be done by children in daylight should be accomplished then, and not put off until day has gone. No artificial lighting can make up for daylight. When required, artificial light should be ample and steady, and come from a suitable direction. An unsteady light is dazzling and fatiguing. Nor should the illuminant be placed too near the eye, because the heat emitted is injurious and occasions discomfort. The electric light is likely to give us the best method of illumination for schools. It has been employed on the Continent, and is now made use of in some schools in England. Fuchs tells us that in Liege the rooms used

# PLATE IV.



for drawing were lighted by it—these were evening classes—and the light was by an arrangement of concave mirrors thrown up to the ceiling, and thus diffused equally through the room, the source of light being hidden. The light fell in equal degrees upon all the desks, was sufficient, and not dazzling

Desks and Seating of Scholars - The question of the posture and proper seating of the children in school is a very important one A much more enlightened view is now entertained on this subject than was not long ago the case, and its importance is becoming recognized As evidence of this may be mentioned that whereas at the Paris Exhibition in 1867 there were only three school-desks shown, at the last Exhibition no less than seventy-one were exhibited A bad posture is not only injurious to eye-sight, as will presently be demonstrated, but it is a fruitful source of crooked spine Eulenbeig says that 90 per cent of curvatures of spine, not induced by local disease, are developed during school-life, and in a school at Neuchatel among three hundred and eighty-one guls, one hundied and fifty-six were found to have more or less deviation of the spinal column The manner in which the spine becomes distorted is illustrated in the photograph (Plate IV), which I had taken of two boys who sat purposely in a bad position writing at a table too high for them To make the point desired to be illustrated more distinct the line of the spine was inked. The two other illustrations (Plate V, Figs A, B) were taken at the same time to show the bad position assumed by a child when sitting improperly at a desk or table. In the instance illustrated the boy was seated on a backless bench, at a table which was too high.

The backless bench has long since been condemned for childien of all ages and conditions. The point, however, is haidly yet grasped, that desks of different sizes are requisite according to the size of the children. It has well been observed (Snellen), "that it is absolutely impossible that a tall and short boy will both sit equally well on the same seat and at the same desk. It is just as unlikely as that the same clothes would fit the same pupils Yet in many schools we find desks and seats the same size for all."

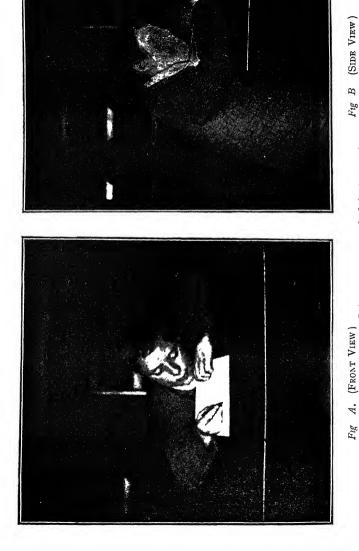
As a general rule, children in a school have the same desks quite irrespective of their size. It has been pointed out that the objects we have in view are to prevent undue approximation of the scholar to his lesson-book, and to avoid stooping. To attain these ends certain principles must be followed in the construction of desks. A back lest is important, because without it a child will not for long sit upright. It need not reach above the loins or lower part of the back,

if it reaches to the upper part it will interfere with the free movements of the body. Also, unless a child is able to rest his feet on a foot-board, or on the floor, but has to let his legs dangle, fatigue will result. The height of the seat, the height of the desk, and its slope, are all matters which should be observed, and indeed are attended to in modern school-desks. The slope for writing should be 20°, and for reading 40°. The best constructed desk with which I am acquainted is one devised by Mr. Priestley Smith and made by the Midland Educational Company (Plate VI, Figs. C, D). It is constructed upon the principles advocated by Cohn, and is made of different sizes to suit the varying stature of scholars. It would, in my opinion, be improved by being made somewhat lighter. I have ordered many of these desks for patients, and with satisfaction

This matter of seating of children is one of the most important, if we are to prevent short sight or crooked backs. A medical report at Strasburg, in an investigation into the influences of schoollife, speaks strongly, as follows "We look upon the doing away of the old school-desks as the most urgent necessity of school hygiene. Every half year's delay causes fresh mischief."

Reading and Writing.—These are two subjects that demand careful attention School-books are much better printed now than was formerly the case. Some of those in use are excellent, both as to size and style of type. The worst are the arithmetic or mathematical ones, when in reality, from the figures which crowd the pages, they should be the most clearly printed of any

It is important that little children should have books with large well printed letters, which will be readily made out Much of our reading is in reality guess-work, and rapidity in forming our ideas has come to us by practice Javal, some years ago in some intelesting observations on the physiology of reading, pointed out that the eye in reading had no time to examine each letter in all The point of fixation in reality runs along a strictly horizontal line, cutting the letters below their tops parts of the letters are seen by a part of the retina at greater or less distance from the centre. He explains this by saying that the eye runs horizontally to avoid unnecessary and tedious movements, and the line is determined by the form of the printed letters If we cover the upper half of a line it will require considerably more effort to decipher it than if the lower half is coveied In the latter case it can be read just as easily as if the whole of the letters were seen. Javal proceeded to show from this that most of the letters projected above the line, but that as some



 $Fig\ B$  $F_{lg}$  A. (Front View) Rad position at writing, the fault of table and seat

MEDICAL ANNUAL, 1895

presented similarities there was room for alterations in them which would facilitie reading. Printing which is ill-defined has to be brought nearer the eye, and hence for the reasons before given it must be objectionable. All books should be printed in clear and well-defined type. Cohn lays it down that type, taking (n) as the character, which is shorter than 15m, is injurious. The Pica which forms the standard of English type is larger than this.

Reference is often made to school books, but as far as I remember little is said about the printing of music, and yet it is about their music that many little patients come to grief. There is room for improvement in the printing, especially of cheap music

Writing - The methods employed in writing require careful notice The old grey slate is in less request than it formerly was, and its place has a good deal been taken by pens and paper may well be spoken against, for the contrast between it and the pencil markings were at the best but slight, and when it became greasy they were rendered less so. The contrast of black letters on a white surface is much greater. It has been proved that letters written on a slate to be equally legible must be placed nearer to the eye than characters of the same size with pen and ink on ordinary white paper, the difference being as much as three to four Professor Homes, of Zunch, was of opinion that the welfare of the eve demanded the expulsion of slates from schools. The use of ink and paper was advised and practically tested, and as the result the School Board adopted a resolution that pen and ink should be used as writing material, but that the teacher should be permitted the use of slates for beginners in the first winter term. Cohn adopted these conclusions, and to obviate the evils complained of in the old slate he had white composition slates made. They had a non-shining suiface, pencil maikings were easily erased had a supply of these slates soon after they were first made, but as far as my knowledge goes they never came at all into use in this country, for one thing the cost was held to be prohibitive In many schools there is a tendency to give too much writing All is eve-work, and notes from lectures are taken down by guls until the number of note and exercise books which they have in use is frequently very large

A good deal has during the last few years been written as to the position pupils should occupy when writing, and whether the writing should be vertical or slanting. The latter held sway for long, but there is evidence that to some extent it is being superseded by upright penmanship, and will in the form be more so. For my part, I am

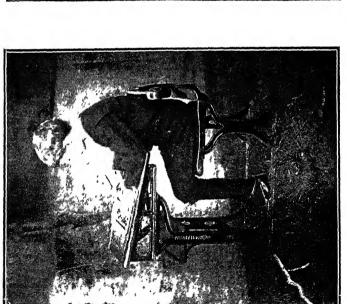
satisfied that for the objects one has in view for obviating sight-failure the upright is to be prefeired to the slanting method. From an oculist's point of view there are distinct advartages in the vertical method of writing. The eyes are directed straight to the copy, whilst in the sloping method there is a great tendency for a pupil to assume a slanting look with his eyes, stooping also will be less liable to occur, and it will be easier for the scholar to keep at a proper distance from the book. The photographs reproduced here (Plates VII & VIII), were taken in a school where vertical writing was taught. The one (Plate VII) illustrates the scholars viewed from the front, and the other (Plate VIII) shows the good position maintained by the scholars from a back view.

Hours of Study — The prejudicial influences, already mentioned, will act with greater force if associated with bodily fatigue and overwork, especially brain work. The indic weary the scholar becomes the closer to the eye will go the book. The intervals of rest in the hours of study, even if short, should be frequent. There is also much to be said for the older plan of morning and afternoon school, rather than a long period all at a stretch. The former allowed time between school hours for recreation, and, what is of the utmost consequence to children, a good substantial midday meal.

It is certainly desirable that the child's attitude at home should be as correct as at school, and especially that the regulations as to light should be carried out, and more so because, for the greater part of the year, artificial illumination will be required. In many cases attention to these matters at home will be impossible, and this is a reason for the preparation classes being held at the school. Home work should be avoided as much as possible.

Fancy needle-work and fine embroidery are in many instances to be discountenanced. It is necessary and useful for every girl to be taught the use of her needle, but the amount of fine needlework which was, and it is presumed, is still required at schools, is to be deprecated. Samples of the various kinds of needle-work required of the different standards in elementary schools were some time since brought to me by a teacher, and they appeared to me to unnecessarily and injuriously tax the "isual capacities."

The Duties of Parents and Teachers—Parents—The home life of pupils plays without doubt a by no means unimportant pair in the causation of the ills of the school period. Especially is this the case with elementary school children, many of whom must almost of necessity be badly fed and housed. But besides this, my experience is that parents are too apt to shirk their own responsibilities and



 $F_{1g}$  D

throw them on the teachers — To the doctor they may murmur at the over-pressure and over-work at school, but here it seems their duty ends — It is uncumbent on every parent sending a child to school with defective eyes out to mention the fact to the teacher — It is desirable, moreover, to see that their children when engaged on home lessons, or in other reading, or writing, assume a proper position in a good light, that they also bear in mind what has previously been written in this article, and that also which follows.

Teachers -- Teachers have it in their power to render very material assistance in preventing deterioration of vision in their scholars

The points mentioned in this article as to the lighting of schools, the school desks, and the posture of the children, when engaged in writing and reading, should be borne in mind by them. When a child with defective sight is sent to school the teacher should be made acquainted with it by the parents, and especial pains should be taken with that child It should not, however, be difficult for a teacher to recognize a real defect, and not mistake for stupidity or idleness what is the result of genuine mability. Still, teachers are frequently doing this, and many unhappy children have punishments indicted on them simply and solely for mistakes arising for want of visual power not easy to excuse such conduct as this, and paients are more than justified in feeling and speaking strongly on it. A child who is known to be short-sighted should be placed towards the front, where the task of seeing what is written on the black-board will be easier. A teacher also who has observed a pupil's sight to be defective should communicate the fact to the parent of the scholar so that proper advice may be taken Especial attention should be paid to such children at then lessons They should sit upright, avoid stooping, avoid close work (less than twelve inches is huitful), work should be done in a good light from a proper direction, writing should be curtailed, frequent pauses between the lessons enforced, and home work abolished or regulated Teaching through the ears to save the eyes, should be employed when practicable in aggravated cases

Types to aid a teacher in detecting short sight have been prepared, and the Anthropometric Committee of the British Association has proposed a series of suggestions for use in schools. They deal with hearing, bodily condition, such as height, weight, etc., but what interests us here is that directions are given as to sight. These were drawn up for the committee by Mr Priestley Smith, and if acted upon by teachers, without doubt much good would result.

Dr S D Risley, of Philadelphia, claims in a recent article that the thorough manner in which the ophthalmic surgeons of that city have

for many years corrected refraction errors has led to very refinite results Altogether he deals with no less than 200,000 even, and a consideration of the evidence substantially demonstrated the essential responsibility of anomalies of refraction in the etiology of short sight and also the value of treatment and correction of these eyes in airesting the increase of invopia. He concludes that the progress of the increasing refraction, both in percentage of cases and in the degree, was arrested by the treatment and glasses received. There was a steady decrease, taking the figures which are given in full detail, of the first years in the percentage of short sight falling from 28 43 per cent in the first period, to 1678 in the last. Of greater importance almost is the fact of the diminution of the grade of myopia, there being a fall of nearly 50 per cent of the patients with 10 D, or greater, and a closely corresponding decrease in the cases with M of 3 D to 10 D ficance of such figures cannot be too strongly urged as setting forth the value of modern ophthalmological methods to the community in the prevention of myopia

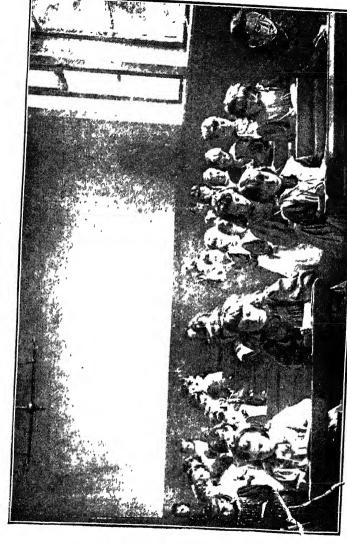
## Ophthalmic Therapeutics

[Editorial

De Schweinitz<sup>1</sup> in a paper on ophthalmic therapeutics, points out that the value of intra-ocular injections is still sub judice. He alludes to Landolt's conclusions regarding the uselessness of prolonged mercurial courses in old atrophy of the optic nerve, also in certain chronic affections, e.g., pigmentary degeneration of the retina, atrophic choroido-retinitis and disseminated choroiditis, and the doubtful utility of this drug in non-syphilitic chronic exidative inflammations of the useal tract, e.g., indo-cyclitis and indo choroiditis, which last conditions demand the climination of their exciting cause—rheumatism, gout, depressed nutrition from wasting disorders, abnormal mensituation, or chronic uterine diseases—and appropriate treatment of the constitutional condition

It should be particularly remarked that all this refers to vigorous use of Mercury, pushing the drug to the point of tolerance, or even beyond. No one doubts the efficacy of the drug in proper dose, especially the bichloride and biniodide, as an enricher of the hamoglobin percentage of the blood, as a tonic pure and simple, as an antiplastic, and as possessing the subtle influence which we call alterative. Within these limitations mercury must always remain a potent agent in our hands, especially in the early stages of these troubles—for example, when an optic nerve is on the stage of cloudy swelling, slight ædema, or passive hyperæmia

Under the head of treatment of optic nerve atrophy, Schweinitz discusses the suspension treatment of Charcot, and concludes that



Photograph of Children in School engaged in upught writing (Front view)

MEDICAL ANNUAL! 1595

although the improvement thus far obtained is meagic in quantity and the outlook extremely dubious, the subject is of sufficient importance to invite a more accurate study than has thus far been accorded to it

The use of organic extracts in the treatment of the ocular troubles of ataxia is condemned, and Valude's application of antipying subcutaneously administered for optic nerve atrophy is also objectionable

The condition typical of the asthenopic eye—the hyperemic nervehead, imperfectly differentiated from the unduly flannel red surrounding choroid, itself woolly in appearance and exhibiting faint dark areas in its periphery, indicating inter-spaces between its larger vessels, together with a streaked and slightly opaque retina, is familiar to all practical ophthalmologists, and the Iodide and Bromide of Sodium and Potassium, Iodide of Iron, the alteratives generally and various preparations of Ergot, naturally suggest themselves, and probably Gannabis Indica has a distinct sedative influence upon the retina under these cucumstances

Certain disadvantages connected with the use of cocaine are well-known and always avoided by careful operators, especially its power to wrinkle the corneal epithelium and to render this membrane more susceptible to the disturbing action of vigorous germicides, particularly bichloride of mercury. Recently, Mellinger, called attention to another huitful action of cocaine—namely, that it hinders, after section of the cornea, the development of a primary lamellar wound closure, and prevents the formation of a "coagulation support" in the parenchymatous portion of the corneal meision. These researches probably explain some cases of delared union after cataract section, and indicate the necessity of using cocaine in quartity only sufficient to anæsthetize the cornea.

In the medicinal treatment of optic nerve atrophy—Strychnine, Phosphorus and its compounds, Nitrate of Silver, Antipyrin, and the alteratives—the probable value of Nitro-glycerin should not be forgotten. We are all familiar with the temporary beneficial effect of Nitrite of Amyl upon the visual acuity of certain types of toxic amblyopia, and hence Glonoin, in graver forms of atrophy, when they have not progressed too far, may assist in bringing nourishment to the fibres by its vaso-motor influence.

The great majority of careful observers are inclined to agree with the assertion of Noyes, that electricity "has failed to vindicate its pretensions to any real value, although by its capacity for exciting phosphenes, it fosters the hopes of a credulous incurable."

Di Riggs believes that the physiological action of the remedy

is more energetic with reversal of the polarity of the electrodes than with simple closures

The use of the **Continuous Current** has received some commendation for the renewal of opacities of the viticous, and Pansier has recently contributed a number of observations on the use of the continuous current in the treatment of irido-choroiditis, and reports the disappearance of adhesions and a calming and sedative effect under its influence. The negative pole is applied to the lids and the positive in the region of the superior cervical ganglion, with a current of five milliampères' strength. There is enough evidence to make it worthy of further trial, and it is desirable that those who have had an abundant experience should record their results.

Formulæ for an Eye-Wash<sup>2</sup>—All former eye-washes made up of nitrate of silver, atropine, eserine, or sulphate of zinc, have of late been substituted by antiseptics, chief among which is **Corrosive Sublimate**, according to this formula

B. Bichloride of Mercury gr ½ | Sydenham's Laudanum 3ss Distilled Rose-water 5v |

For an eye-salve -

B Red Onde of Mercury grs 15 | Powdered Camphor grs 7½ Crystallized Acetate of Lead grs 15 | Vaseline grs 288

REFERENCES —" "Therap Gaz," Aug, 1894, 'Ibid, Oct, 1894

## FEVER (Enteric).

The Urine -Di Guve points out that mistakes in applying Ehrlich's test may arise on account of the different terms applied to the same shade of colour by different observers has used the test as follows "A, containing the saturated solution of sulphanilic acid, and B, the 1 per cent solution of sodium nitrite These are mixed in the proportion of 100 ccm of A to 25 ccm of B A small quantity of the mixture is added to an equal quantity of urine, which is then made alkaline with strong solution of ammonia In normal urine a yellow or orange colour is produced, and in morbid urines all shades from this up to a deep-red (port-wine) colour are obtained At first it was very difficult to separate out the reds, then it was suggested that the foam might be a very useful guide, and since that time he has found that, in a true Ehrlich's reaction, if the resulting liquid be shaken up a foam may be formed, which in the normal urine is white, but in the time leaction is of a delicate salmon colour. This is very easy to distinguish, and has always determined his opinion one way or the other as to the re-



Bick view of Children in School engaged in upright writing

MI DIC + L ANN UAL, 1895.

action in a given case This point he is convinced is of great value in the estimation of the character of the reaction"

Dragnosis.—Dr. Simon Baiuch's says "As soon as a patient she is a rectal temperature above 1025° in the morning and 103° in the evening for three successive days, especially if this be accompanied by headache, dulness, or apathy, he is placed in a full bath at 90°, which is reduced to 80°, with constant friction over the body. In three hours, the temperature still being above 1025°, he receives another bath five degrees cooler. This is repeated until the temperature of the bath is 75°. If one or more of these baths fail to reduce the rectal temperature two degrees in half-an-hour, the diagnosis of typhoid fever is almost certain, and the bath treatment is continued. The resistance of the rectal temperature to a bath of 75° for fifteen minutes with friction is an almost certain test of typhoid fever."

Dr Baruch considers that the diagnosis of this disease should no longer be obscure, even in the first days of its course

Dr Filipovich,3 of Odessa, calls attention to a hitherto unmentioned sign which he has observed in all the cases of typhoid fever under his care during the last two severe epidemics of typhoid in Odessa consists in a peculiar cillous appearance, of an orange or saffion yellow colour, upon all the prominent portions of the palms of the hands and plantai suiface of the feet, taking the place of the losy appearance of those parts in health or the bluish tinge seen in cyanotic patients This condition is explained by the feeble heart-action, the incomplete filling of the capillaties and the dryness of the skin in typhoid patients. In view of its constant and well-marked appearance in all the cases of typhoid under observation, Filipovich thinks it may well serve as a diagnostic sign of typhoid fever, in the absence of other pathognomonic signs Di Skibnevsky has also observed the constant appearance of this palmar plantar sign during an epidemic in Moscow The sign disappears rapidly on the establishment of convalescence

TREATMENT—Eliot\* insists on the necessity of absolute rist in bed, quiet, and liquid food until the temperature has remained below 99° F, during the whole twenty-four hours for a week at least. He commends Carbolic Acid and Iodine as the best antiseptics as well as gastric sedatives, relieving nausea and vomiting. These are administered in the following mixture.—

B Ac Carbol 51 | Tinc. Iodi 511]

M Ft Mist. Sig —4 diops in a wineglassful of water every four hours

Villetsch<sup>5</sup> claims considerable success from the use of Iodine as follows -

Secundus horis Sig -8 to 10 drops

Samson<sup>6</sup> inclines to view solitary cases of typhoid with great mistrust In quite young subjects meningitis should be suspected, or history of some one of the exanthemata In the case of old patients he quotes the advice to never call in the assistance of the consultant until the condition of the kidneys has been ascertained

After discussing the aspect presented by a large number of cases in which relapses occurred Stewart concludes that -

- (1.) So-called relapses of typhoid fever are genuine second attacks, repeating all the phenomena of the first and due to re-infection of the large intestine from the small
- (2,) This re-infection generally takes place at a definite period in the original attack, and is probably effected by the passage of sloughs over healthy lymphoid follicles
  - (3,) Constipation is an important pre-disposing cause of relapse
- (4,) The prognosis of relapse is good, and of this fact a reasonable explanation can be offered

Surgeon-lieutenant-colonel Quill<sup>3</sup> recommends —

Ft Mist Sig -31 every two hours with an equal quantity of ice-

The author says it is important to continue the use of the mixture in from 3 to 5 doses daily for at least a week after the temperature has fallen to the normal point, this renders the patient less liable to Surgeon Quill states that during the past year he has treated with this mixture all the cases of typhoid fever that have come under his care, and in every case perfect recovery has followed without the occurrence of any symptom calculated to cause anxiety. but he does not state how many he has had He has observed the following effects of the use of Carbolic Acid and Chloroform reduction of the average duration of the fever, (2,) A continuous depression of the febrile temperature, (3,) Early cleansing of the tongue, which was rarely observed to be dry, and then only for the time being, (4) An almost complete deodorization of the stools, (5,) Entire absence of abdominal distention, (6,) Checking of the tendency to diarrhœa, (7,) Preservation of the patient's intellectual clearness, with no tendency to stupor or delirium, (8,) The non-occurrence of any secondary complication, (9,) Railty of relapses and their brief duration when they occurred. (10,) The invariably satisfactory assimilation of food, (11,) Rapidity of convalescence

REFERENCES—""Plactitioner," March, 1894, 2" New York Med Journ," Sept 2, 1893, 3" Boston Med and Surg Journ," p 429, Oct 26, 1893, 4" Med Record," Nov. 18, 1893, 5" Manch Med Wochenschrift", 6" Med Age, 'Dec 11, 1893, 7" Plactitionel, 'March, 1894; 8" Brit Med Jouin," April 28, 1894

### FEYER (Puerperal).

Wm J Smyly, MD, FRCP, I.

The Prevention of Puerperal Fever — The bulliant results obtained by antiseptic midwifers in maternity hospitals have not been attained in private practice, and this is the more to be deployed since the great majority of women are confined in their own homes Dr Boxall has stated that the returns of the Registrar General show a slight improvement in London, and rather worse results in the provinces. Allowing for the uncertainty of statistics, we must admit that the improvement, if any has been very slight. Dr. Boxall endeavours to account for this by the fact that the bulk of midwifery practice is still in the hands of persons who have not been instructed in antisciplic details fortunately, in Germany, where the use of antiseptics is enforced by law, a similar lack of improvement has been reported. Something more, therefore, is required than antiseptics, and Hegar is probably right in stating that what has been gained by antiseptics has been lost by meddlesome interference. We come back, therefore, to the old "Meddlesome midwifery is bad"

As meddlesomeness, I would especially warn against frequent vaginal examinations, early rupture of the membranes, unnecessary use of forceps, manual removal of the placenta, and routine douching

The importance of replacing vaginal as far as possible by abdominal examination was first insisted on by Credé. In 1886 he wrote, "Even the simplest manipulation may cause infection. It should, therefore, be laid down and taught as a fundamental principle that internal examination of parturient women should be altogether avoided, or restricted within the narrowest possible limits. It can be very well replaced by external examination. To instruct their pupils as thoroughly as possible in this method is the present and future duty of teaching institutions." This is the tendency of modern midwifery, and is an advance, almost, if not quite, as important as the introduction of antiseptics.

By way of illustration, I shall describe how to conduct an ordinary labour. The attendant having asked the usual questions directs the

patient to lie close to the right-hand side of the bed, upon her back, with her legs extended. Having warmed his hands, he then proceeds to palpate the abdomen systematically, to do which he employes three grips, occasionally four. For the first three he sits beside the patient with his face towards hers, for the fourth he changes his position, turning his back towards her face.

For the first grip he places his hands flat upon the fundus, and observes its relation to the ensiform cartilage and umbilicus. He then feels more deeply the feetal parts. The breech feels large and soft, with the lower limbs in close proximity to it. The head is recognized by its hardness and a peculiar sensation of ballottement, which, if once felt, can never be mistaken

For the second grip the hands are moved downwards to the middle of the uterus. A sense of greater resistance is felt by the hand under which lies the back of the child, the opposite side is soft, and the lumbs can be felt. If still in doubt, one hand is placed in the middle line, and gently pressed backwards towards the spine. The child is thus displaced into the side of the uterus towards which its back is turned.

For the third grip one hand only is required. It is placed upon the hypogastrium, just above the pubes, with the thumb on one side of the uterus, the fingers on the other. By slowly approximating the thumb and fingers, the lower segment is grasped, and the part of the fœtus contained in it distinctly felt. The head feels large and round, the breech smaller, and much softer. By moving the hand from side to side, the mobility of the head is ascertained. When above the brim it bullottes, but when it enters the brim it is fixed. By moving the hand upwards, it will be found that the head extends higher on one side, and that on the higher side it approaches nearer to the surface, this is the forehead, from which a deep groove runs downwards to the occiput

When the head has descended into the pelvis, the fourth grip becomes necessary The examiner sits with his back to the patient's face, and, placing his hands upon the sides of the uterus, slides them downwards until the finger tips are just above Poupart's ligaments. When the back is to the left, the round ligament on that side is usually felt as a hard cord, but the right ligament is not so distinctly made out in the second position. The finger tips of both hands are alternately pressed down into the pelvic brim until the skull is felt. The sides on which it approaches nearest the surface is the face. Lastly, the foctal heart is auscultated, and its position and rapidity noted.

From this method of examination, the following information is obtained ---

Firstly, the presence of pregnancy Dulness on percussion, palpation of feetal parts, and the feetal heart sounds, exclude pseudocyesis.

Secondly, the period of pregnancy is determined by the position of the fundus, the prominence of the abdomen, the condition of the umbilicus, and the size of the fætal head

Thirdly, the presentation and position of the fœtus. In vertex presentations the hard round head is felt in the lower uterine segment, the breech and legs in the fundus. In the first position the forchead and limbs are to the right, the occiput, back, and fœtal heart to the If the face be towards the pubes, and above the brim, the forehead forms a prominent tuinour, resembling in appearance a distended bladder, but is easily diagnosed from this by its hardness. Above this tumout the abdomen is not prominent, but forms a deep sulcus In face presentation the limbs and fætal heart are found on the same side as the greatest resistance Below, the occiput forms a large round tumous on the opposite side to the limbs, but no part of the head can be felt on the same side. In breech cases the head is found in the fundus, and the fætal heart at the level of the umbilicus and transverse presentations the head is found to one side, the breech on the other Twins are indicated by two heads, the number of limbs. especially if found on both sides of the uterus, and a second fœtal heart

Four thly, pelvic deformity is suggested by pendulous abdomen, abnormal mobility and obliquity of the uterus, especially in primiparæ, and, in the latter, excepting hydramnios, hydrocephalus, and plural briths, it is an ominous sign, when labour has commenced, to find the head above the brim. The manner in which the head enters the brim is also suggestive. In flat pelves the forehead and occiput are on the same level, in generally contracted pelves the head is abnormally flexed.

Fifthly, we can tell whether the woman is in labour by the contraction of the uteius during a pain. The contractions preceding labour are painless. False pains are not accompanied by contraction

Stithly, the course and progress of labour can be accurately followed by observing the fixation of a previously mobile head, and following its descent into the pelvis. For this purpose the distance of the highest point of the forehead from the pubes is measured in fingers' breadths, and after it has passed the brim it can be followed down into the cavity by the finger tips

Danger to the mother is indicated by thickening of the upper and thinning of the lower uterine segments, the gradual elevation of the contraction ring, and the prominence of the round ligaments. Danger to the child by slowing of the fœtal heart, violent movements, and escape of meconium

External examination should be chiefly relied upon, not only because it is safer for the patient, but also because it gives more information to the examiner, and is easier and more reliable. Having for many years practised the vaginal method exclusively, I found it difficult to persuade myself of the truth of the two latter assertions, but not only has individual experience proved to me that this is so, but in the Rotunda Hospital, where the students are obliged to write down upon the bed cards the result of each examination, I find that mistakes are much more frequent with the vaginal method

A patient who has never been examined is almost absolutely safe from puerperal infection, and, therefore, before each examination one should be fully persuaded of its necessity. For my own part, I seldom examine more than once, when, for example, the presentation cannot be made out by careful and repeated palpation, and to obtain information which cannot be otherwise attained, as, for example, prolapse of the cord. The best time to examine is as soon as possible after the rupture of the membranes.

Before making a vaginal examination, the hands of the examiner one carefully asepticised by washing them with soap and water, scrubbing them at the same time with a strong nail-brush. The soap is then removed with clean water, and they are immersed for one minute in corrosive sublimate solution, I in I,000. The external genitals of the patient are similarly cleansed, the nail-brush being, of course, omitted. Prophylactic douching, unless specially indicated, is unnecessary, and as a routine dangerous.

Immediately the child is boin the patient is placed upon her back. This is a matter of importance, as it enables the practitioner to control the uterus without fatigue, and prevents the entrance of air, which is liable to set up putrefaction. As soon as the placenta has left the uterus, it may be gently expressed from the vagina. On no account, except in some cases of hæmori hage, should it be expressed from the contractile portion of the uterus, a practice which is often followed by retentions of membranes, post-partum hæmori hage and putrefaction. The expulsion of the placenta from the upper part of the uterus is indicated by the organ, which may have contracted down into the pelvis, suddenly rising up to the umbilicus, a bulging forward of the lower uterine segment, often mistaken for a full bladder, and expulsion of four to six inches more of the umbilical cord. The latter sign can be easily observed if the second ligature, which in the usual position

serves no useful purpose, has been applied as close as possible to the vulva, and if this ligature be subsequently found four or five inches from the labia, the placenta must have left the uterus. The placenta having been expressed, is rotated, and the membranes, twisted into a cord, gently withdrawn—the external genitals cleansed, a clean draper applied, and, if the discharge be not excessive, and the uterus well retracted, a binder applied. A patient thus delivered may be regarded as safe, and subsequent douching, unless specially indicated, is to be avoided as unnecessary and a possible source of infection

### FEVER (Scarlet). (See also "Rotheln )

J Madison Taylor, MD, Philadelphia

Di Clement Dukes' compares the distinguishing characteristics between epidemic ioseola or iose iash, and scarlatina or scarlet fever, as follows —

#### EPIDLMIC ROSEOLA OR ROSE RASH

- (r,) Premontary Symptoms In many cases none, even where there is a copious eruption, neither head ache, nor vomiting, nor catarrh, nor cough, but frequently sole-throat
- (2,) Its season is spring and summer
- (3,) The incubation ferred is usually eighteen days, but with a range of from nine to twenty-one days
- (4,) The eruption is usually the first noticeable symptom, and will cover the whole body with a considerable rash in a very few hours. It has a bright rosy red hue, is raised somewhat from the surface of the skin, and often occurs in patches, with well-defined edges. The sensation of heat of the skin to the touch, even where the rash is very full, is much less than in scarlet lever.
  - (5,) Additional Symptoms -
- (a) Throat The fauces are usually reddish, but bear little relation to the extent of the rash

#### SCARLATINA OR SCARLLT FEVER

- (I,) Prementory Symptoms Usually malaise for a few hours, and frequently comiting. If the attack be slight the patient only feels tired, but usually complains of some amount of sore-taroat
- (2,) Its season is autumn and winter
- (3,) The insubation feriod is from two to three days, with a range from a few hours to seven days, it very rarely extends beyond the fifth day
- (4,) The enution is diffuse, dushy rel, papular in character, and appears first behind the ears. It presents a guoseflesh appearance. No isolated dots at any stage, or patches iaised and with well-defined maigins. It appears early about the clavicles and on chest and the covered parts of the body. Not so full as in epidemic roseola, and markedly hot to touch.
  - (5,) Additional Symptoms -
- (a) Throat The appearance of the fauces may vary from the most insignificant affection to an intense dusky tedness, with marked swelling, showing sometimes white spots of inspissated secretion, and the severity of the throat affection more marked

EPIDEMIC ROSEOLA (continued)

- (b) Eyes The conjunctivæ are pink and suffused
- (c) Glands —The lymphatic glands throughout the body are enlarged, hard, and tender, and feel like peas Those mainly affected are the posterior cervical, the axillary and the inguinal
- (d) Desquamation —In the scarlet fever variety the desquamation may be slight, or as complete as possible, even extending to a general desquamation of the hands and feet but the desquamation bears no relation to the intensity of the eruption, for it often happens that a very full eruption may be followed by little or no desquamation, and what does occur is over in a week or two the other hand, a full eruption may be attended by a general peeling as free as in the worst cases of scailet fever, but always in small scales ather than in flakes or sheets

## (e) Kulneys rarely affected

- (6,) Sensatums of Illness Where the eruption is slight there is no illness of any kind, and where the eruption is copious the feeling of illness is sometimes scarcely apparent, although I have seen boys really ill with it.
- (7,) Tongue Clean or slightly furred, never coated with a thick white fur, which peels on the fourth day, leaving the tongue raw
- (8,) Pulse —In slight cases normal, and where the case is a well marked one the pulse is quickened, but bears a ratio to the temperature, that is to say, where the pulse is accelerated the temperature is raised to a proportionate degree

SCARLATINA (continued)

- (b) Eyes.—Normal.
- (c) Glasds The lymphatic glands of the throat and neck can be scarcely detected during the first few days, but subsequently they may be enlarged in proportion to the severity of the faucial affection
- (d) Desquamation —The desquama tion always bears a ratio to the extent of the eruption A copious eruption signifies a free desquamation, while a scanty eruption is followed by a sparse peeling, which, however, does not cease for many It commences invariably by a peeling of the tongue on the fourth day, which extends to the lips and is followed by peeling of the face and behind the ears, one of the easiest places in which to detect it early is on the ears themselves Desquamation is in shreds rather than scales, and very free about hands and feet
- (e) Kidneys Albuminuria very frequent Acute nephritis very liable unless the treatment be appropriate
- (6,) Sensations of Illness.—In slight cases there is no apparent illness, but I have never seen a case with a severe eruption where the patient was not really, and also felt, very ill
- (7,) Tongue Coated with a thick white fur, peeling off from the tip and edges on the fourth day, leaving the "strawberry" tongue
- (8,) Pulse Even in slight cases it is accelerated, and in severe cases very greatly quickened, and always out of all proportion to the height of the fever, that is to say, even with a temperature only just above noimal (99° F) the pulse will be very rapid (120)

EPIDEMIC ROSEOLA (continued).

- (9,) Temperature varies from 98 4° to 103° or 104° F, but even with a very extensive rash the temperature is not necessarily high
- (10,) Course of Illness —The symptoms, however severe, pass oft in a few days, leaving comparatively little feeling of illness. The glands continue enlarged and tender for about three weeks, and I have seen the submaxillary glands swollen Desquamation continues for two or three weeks, or longer.
- (II.) The Period of Infection —I do not know any illness which is so infectious in its earliest stage, even before any symptoms are manifest It arises from this cause that schools suffer to such an extent when once it has found entrance. In its later stage, even while desquamation is taking place, it is not infectious beyond two or three weeks, after thorough disinfection.
- (12,) Protection The attack affords no protection against scarlet fever
- (13,) The duration of Infectiveness —
  From ten to fourteen or even twentyone days where efficient disinfection
  is in force
- (14,) Sequelæ—Practically none, but I have seen the submaxillary glands enlarged
- (15,) Termination —Usually complete recovery in a fortnight

#### SCARLATINA (continued).

- (9,) Temperature ranges from 99° to 106° F, but never increased in the usual ratio to the pulse A full rash always means a high temperature
- (10,) Course of Illness The illness gradually subsides in from four to seven days Desquamation commences as eruption fades, and continues for from seven to eight weeks or more, and lasts longest on the hands and feet
- (11,) The Period of Infection—The least infectious of any illness in its early stages. After the first fortyeight hours it is very infectious, but how long the infection lasts I am not prepared to say. Until this can be ascertained the only safe rule is to assume that it may last as long as desquamation itself, although I am quite clear that this is maccurate
- (12,) Protection Theattack affords no protection against the scarlatina or measles variety of rose rash
- (13.) Duration of Infectiveness From six to eight weeks or more—
  11., when the desquamation has ceased, but infection probably does not last so long after efficient disinfection
- (14,)  $S_{L}$  µwelw Nephritis suppuration of the submaxillary lymphatic glands and others, offits, rheumatism, and endocarditis
- (15,) Termination —Usually complete recovery, but sometimes a prolonged convalescence on account of the sequelæ, and the disease shows a high mortality in the very young
- (16.) Treatment Every case of scarlet fever, however slight, requires twenty-one days of lying in bed absolutely. The patient should be clothed in a flaunel night shirt, and the skin daily gleased with carbolic or eucaly ptus oil. No food should be given for the first week, except milk and farinaceous food, however slight the illness, for this helps to guard against nephritis

It is essential to isolate cases until all desquamation has ceased from the hands and feet, for this process sometimes occupies several additional weeks. I have acted on this assumption for many years without haim, even transferring boys to their homes. Of course, complete and thorough disinfection is imperative. In roseola, on the other hand, the patient may be permitted to get up on the fifth or six day or as soon as his strength permits, mespective of the desquamation, and without danger from sequelæ. He then requires three or four days in doors, followed by five or six in the fresh air, and may safely join his schoolfellows at the end of from fourteen to twenty-one days, notwith-standing desquamation, provided the disinfection has been thorough

Di Childe, records an instance of two attacks of scarlatina occuring within four months in a gul of thirteen. Not only was the interval very biref, but the immunity or resistance derived from the first attack appears to have been *ml*, the second attack being the more severe.

D1 Allan Jamieson³ considers that the best application to the throat is a spray of **Peroxide of Hydrogen**, 10-volume strength. The spray can be repeated from three times a day to once in two hours. It should be continued, the intervals being extended, till all redness and swelling other than normal have disappeared, and till its application no longer induces pain. As regards the management of the skin, in the stage of exanthem we must favour the development of the rash by warm baths, which are best given at night, after which the entire surface must be smeared with 8 ounces of **Almond** or **Olive Oil**, containing a fluid drachm of **Carbolic Acid** and 2 to 4 fluid drachms of **Oil of Eucalyptus**. When desquamation commences the warm bath must be supplemented by soap. The patient must be kept in bed for the first three weeks, and should not be allowed to mix with others till the peeling is completed, and the hair washed several times.

Dr Flint iaises the question of the prophylaxis of scarlatinal nephritis and advocates a strict adherence to a milk diet for a month after the cessation of fever, but many practical difficulties were found to prevent this being strictly carried out. He found that his cases could be divided into three groups. (1,) Those in which an exclusive milk diet was well tolerated for a whole month, (2,) Those in which a mixed diet, consisting of milk and solid food was employed, and (3,) Those in which milk was not tolerated in any quantity, and the diet was therefore necessarily composed chiefly of solid food. In the first group, after the first month the modified milk diet of the second group was given for a fortnight, and then solid diet was allowed. At the beginning of the fever peptonised milk was employed where three

was any mutability of the stomach, and junket, whey, buttermilk, skimmed milk, or koumiss was sometimes administered. If albumen appeared, the patient was put back on a nulk diet, and kept on it till two weeks after the disappearance of the albuminuma The second group received two solid and two or three milk meals daily, the former consisting of clear soups, green vegetables, bread and butter, cream, eggs, fish, oysters, chicken, and (later) a little fresh beef or mutton loasted, broiled, or boiled. Strict miunctions were given that with each of these meals a liberal allowance of beverage was to be taken—either hot water with a little milk, very weak tea, or slightly sweetened cocoa The third class of patients received the solid foods just enumerated, and special stress was laid upon their taking a liberal allowance of warm drinks at each meal, with a mild dimetic or alkaline salt in water after each meal and at bed-time found best to use the various potash and soda salts in turn

REFERENCES — "Lancet," p 793, March 31, 1894, " Practitioner, Jan, 1894, " Med Magazine," vol 1, No 11, 1893, 4" New York Med Journ," January 6, 1894

### FILARIA MEDINENSIS (Guinea Worm Disease).

T Collect Fox, MB.

Patrick Manson condemns the usual methods of extracting guinea worms, unless the worm is so situated that it can be cut down upon and taken out entire The filaria, if left to herself, completes her partuition in about fifteen to twenty days, and begins to be discharged spontaneously without inflammatory symptoms. The treatment by rolling on a piece of wood etc, takes about as long, and therefore Manson argues that it is best not to be meddlesome and court a disastrous breakage and rupture of the worm, but to encourage the normal parturition to its termination. All that is needed is to protect the parts from injury by a simple water dressing, and to pour on cold water two or three times daily (the natural uterine stimulant) times a patient can be sent to running water with due precautions as to dissemination of the parasite When parturation has stopped, if the worm be not spontaneously discharged, she can be reeled out cautiously, douching with cold water several times daily and applying in the interval dry antiseptic diessings

Vinze, after alluding to the disastious consequences following the breakage of the worm and her death in the tissues, says that when she appears under the skin as a ridge she can be removed there and then. The part should be kept covered with a wet cloth dipped in simple cold water for about ten minutes to make the ridge appear more prominent. Then an incision is made with a scalpel just to one side,

avoiding injury to worm. A dissection is made of the skin and fascia on each side of the worm, and a strong needle is introduced beneath the worm and gently lifted up. She is then taken with the fingers and extracted entire by gentle coaving and friction of the surrounding parts.

Forbes, recommends for prophylaxis boiling the drinking and cooking water for nearly a quarter of an hour, then filtering it, and adding a little citric acid Every third morning a little sulphur should be taken

Forbes believes that a radical cure results from impregnating the patient with small doses of **Precipitated Sulphur** He does not explain how this is brought about

If surgical interference is resorted to its application should be prompt. The point of a bistoury is entered about the site of the vesicle, and carried rapidly round in the direction of the worm's body with the edge outwards, in a sweeping manner, and the worm brought out through the incision. This treatment seems to be rather a hazardous one

Felix Roth, gives his experience in the treatment of cases of some years' duration. He lays the burrows (fistulous tracts) freely open, and puts strips of lint soaked in Carbolic Acid lotion (1 in 15) in the wounds. Oiled silk and wool and a tight bandage are then applied. The dressing is changed daily. When unable to open the burrows he applies compresses soaked in a similar lotion.

Emily5 declares that he has met with great success by local injections of I in 1000 solution of Perchloride of Mercury It kills the worm which is subsequently absorbed, as a piece of sterrlived catgut would be A perfect cure results in three or four days "He divides his cases into three categories first, those in which a hard swelling, associated with some pain and coid-like convolutions under the skin. indicates the presence of a guinea-worm about to break through. secondly, a similar but fluctuating swelling indicating that the process has advanced still further, thirdly those in which this process has been completed, and part of a guinea-worm is protruding from a hole on the ulcerated surface of the limb The first, he says, is the most hopeful for successful and rapid cure He simply injects-and only once—a Pravaz's syringeful of bichloride of mercury solution in -fractional quantities by several insertions of the needle into the swelling, making the punctures as near the assumed position of the body of the parasite as possible, this plan he follows in the first and second type of the case In the third type he injects, by puncturing it, the protruding body of the parasite itself, and any swelling in the vicinity of the opening from which it is hanging. In the last instance he says the parasite can be easily withdrawn on the day following the injection, in the other two cases the swelling rapidly disappears, and nothing is ever seen of the worm, which, it is to be presumed, has been killed and is subsequently absorbed?

Vesey Davoren, has practised Emily's treatment in two cases by injecting subcutaneously perchloride of mercury solution (1 in 1000) in four or six places round the site of the worm, and subsequently freeing any pus that collected — Circs resulted in ten to fourteen days

Randle<sup>7</sup> criticises and condemns the various methods adopted to bring about a cure, such as galvanism, assafætida internally and externally, the movement of the affected part in running water, extraction by coaving, sucking or cupping, the local application of alum powder. Randle applies every two hours **Carbolized Poultices** made by adding carbolized oil (1 in 15) to linsted meal, gair, or foo-foo, in order to reduce inflammation or attract the worm to the surface. He then extracts the worm by rolling it on a stick or quili, and aids by making intermittent pressure around. If the worm breaks, he poultices and uses Paget's knife freely. In this way he claims that no case should be under treatment for more than fourteen days.

RFFERENCES—" Hygiene and Diseases of Waim Climates," 1893,
"Indian Med Gazette," July, 1894, "Lancet," p 471, February 24,
1894, 4 lbid, March 31, 1894, 5 Quoted "Bit Med Journ,"
from "Archives de Med Navale," June, 1894, 6 "Bit Med Journ,"
7 "Lancet," Jan 20, 1894

#### FILARIASIS.

Synopsis -(Vol 1894, p 294) Thymol in doses of from 5 grs twice daily to 15 gis four times a day without effect

### FRACTURES (of the Tibia and Fibula).

W Arbuthnot Lane, FRCS.

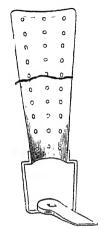
A New and More Perfect Method of treating some cases of Oblique Simple Fractures of the Tibia and Fibila — In papers read before the Clinical Society and at the meeting of the British Medical Association at Newcastle last year, I showed that many of the principles which had guided the surgeon in the treatment of solutions of continuity of any part of the lower extremity, whether produced by accident, as in the case of fractures of the long bones, or by operation, as in excisions and erasions of the knee, hip, and ankle joints, were absolutely false, and that in consequence of their being slavishly applied the patient suffered mechanically very considerably. By the old methods by the use of the vertical foot-piece, in the case of excision

of the hip or of intracapsular fracture, an unsatisfactory joint on the dorsum illi was usually produced behind the transverse axis of pelvic rotation, in the case of fracture of the shaft of the femuli, shortening followed from the winding up of the lower fragment upon the upper through an angle of 45°, the muscular and other tres in the length of the femuli being abnormally tense, owing partly to hamorrhage beneath them and into their substance, and partly to their spasmodic contraction, in the case of erasions or excisions of the knee and analytic the axis of the leg and foot in the one and of the foot in the other was altered considerably from the normal, and in the case of fractures of both tibia and fibula not only were the bones wound up on one another and shortening was produced, but the differentiation between the directions of the axes of the fragments was enormously increased by rotating the foot inwards till it fitted the vertical foot piece

By adapting to practice the principles obtained by a knowledge of the external rotation of the leg which exists in the position of rest. I found that I could obtain excellent results in the case of fractures of the femus and in the solutions of continuity at the hip, ankle, and knee produced by operations for the removal of tubercular disease. also, in the case of fractures of both tibia and fibula I succeeded in getting better results with the everted foot-piece than I had done with the old method, but it soon became obvious to me that fractures of the femus were on a very different footing to fractures of the tibia and By means of continued extension in the case of fractures of the femul, it was comparatively easy, after a time, to overcome the spasmodic muscular contraction and to stretch the tissues bulged by blood and bruised by the injury till the full length of the limb was obtained, when the extravasated blood had been absorbed, but when the tibia and fibula were broken obliquely, I found it impossible to apply traction for any length of time sufficient to be of service, also the presence of two bones in this portion of the limb rendered it difficult in most cases, and very often impossible to obtain anything like perfect apposition of the fragments I derived great assistance from my house surgeon and dressers in constructing splints to carry out the principle of the equal rotation of fragments, and the drawings I am showing, and for which I am indebted to my diessei, Mi Peters, who took great interest in them and helped me considerably in their development, illustrate their mechanical arrangements very well

Figs 9, 10 and 11 represent the splint used for solutions of continuity of the knee and ankle joints, and of the tibia and fibula. The trough is made of non plate, sufficiently phable to be moulded by the hand. It extends upwards to the fold of the buttock. It is perforated from

within outwards, so that the convex surface presents a number of lagged projections which prevent the bandage from slipping



The foot-piece is made of wood or metal, and is connected to the trough by lateral supports fixed upon an axis which corresponds to the normal axis of iotation of the limb in its length, and is placed about two and a quarter inches in front of the posterior limit of the heel. The splint is lined with clephant plastci



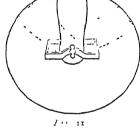


Fig 9 represents the 125 to ind it show the mode of connection of the foot-piece with splint seen from the the rest of the splint, and the ravements of which it is capable

The normal angle of external rotation of the foot in the position of rest is determined by observing that of the other limb, when the foot-piece is fixed in that This angle values considerably with the age and occupation of the individual The foot is then bound separately to the foot-piece, the heel being supported by bandages, so that it does not rest upon any ngid structure (sec Fig 12) The fractured ends being brought into as good a position as possible, the leg is then bandaged firmly in the trough

For fractures of the femul, or for erasions or other operations on the hip joint, the splint illustrated in Fig 13 is used

This consists of a trough, foot-piece, and outside splint which extends upwards into the axilla In the case of erasions and operations upon acquired and congenital doisal dislocations of the hip joint, doisal dislocations of the head of the femur resulting from disease, and in fractures of the neck of the femus in which the being firmly bound to the neck is shortened by the fracture, it is often from its inner aspect

Fie 12 represents the limb lying in the trough, the foot It is shown

^

advisable to allow the limb to rotate outwards to a greater degree than normal, in order to seeme a joint in front of the transverse axis of pelvic rotation

> The advantage of the joint beneath the anterior inferior spinous process is well illustrated by a study of Figs A and B, Plate IX

This patient suffered from an extreme degree of bilateral congenital dislocation of the head of the femur on to the dorsum ilii Her gait as most insecureand disfiguring, on account of the vertical play of the head upon the innominate bone and of the very marked lordosis

The right joint has been operated on some months, and allows of very great freedom of movement, with absolutely no vertical play That on the left side has not yet acquired the same movement, as the child has only been out of her bed on the sofa for a week or ten days. This movement she will acquire very shortly

The right knee is flexed to show the free movement permitted in the joint, and the previous lordosis is replaced by a complete obliteration of the abnormally example atted lumbar curve. It is obvious, however, that the results which can be obtained in double do sal dislocation by this method are not as good as when one joint only is affected. That it is not proposed to develop a joint beneath the anterior inferior spine when it is possible to replace the head of the bone in the acetabulum need hardly be stated here

This, life the other splint, is reversible, and can therefore be used for either side

Although I found that this method afforded a dennite and considerable improvement over the results I had obtained from the use of the vertical footpiece, I came to the conclusion that in a large proportion of cases of fractures of the tibia and fibula by no form of manipulation and splinting could union in perfect position be arrived at I next made careful and extensive enquiries among working men engaged in several labouring occupations in which much weight is habitually transmitted through the hip and knee joints, and particularly



lig 13 represents

in those in whom, in addition, security of tread is of great importance

# PLATE IX





Fig A

—as, for instance, men engaged in scaffolding, house-painting, etc —as to whether they were influenced prejudicially by the alterations in the mechanics of the joints of their lower extremities, and especially those of the foot and ankle, which almost always follow upon the treatment of such fractures by manipulation and splinting, and I found that the results were simply appalling. If the individual was comparatively young at the time of sustaining the injury, a considerable amount of alteration in the axes of the fragments produced no great discomfort, but in peophecipproaching or beyond middle life any variation in the axes resulted usually in progressive incapacity and discomfort. These facts were verified independently by one of my diessers, Mi Steward, who collected the details of the subsequent history of forty cases taken promiseuously from hospitals and infilmatics.

I do not allude to the presence of any considerable shortening of deformity, for with moderate skill and care such conditions can be generally avoided, though in some cases deformity and shortening are noticeable features, but to the progressive discomfort, pain and insecurity which results from an alteration in the physiology of the joints of the lower extremity, accompanied of necessity by mechanical changes in them

In this paper I will confine myself solely to the consideration of the physical capacity of the man to perform his accustomed heavy work after he has sustained an oblique fracture of both bones of the leg, or, in other words, of his relative financial value as a machine, both before and after the accident, and I have no hesitation whatever in asserting that under the methods of treatment at present adopted, not only is the man totally incapacitated from earning a living for an unnecessarily long period, but in a considerable proportion of cases he is unable subsequently to perform such heavy work as he was able to do before the injury, so that he is obliged to follow some less remunerative pursuit, if, indeed, he has not to depend solely on charity.

In fact, his machinery is financially depreciated by the accident, sometimes to the extent of 70 to 80 per cent, at least of its original value

If what I state is true, the form of treatment of such fractures which is universally adopted in our hospitals is simply disastrous, and can only be perpetuated because we are unaware of the financial loss, or even ruin, which our very imperfect surgical methods entail on our unfortunate patients. Though the shortening and deformity are usually trifling, the somewhat complicated displacement of the ends of the fragments on one another is sufficient to completely alter, and

often irretrievably damage, the machinery of the lower extremity. The deviation of the axes of the lower fragments of the tibia and fibula from the directions they originally occupied when in continuity with the upper portions of the respective bones causes pressure to be transmitted through the joints of the ankle and foot, of the knee, and to some extent even of the hip, in such an abnormal manner that the individual experiences not only a feeling of insecurity in these joints, which is especially marked in the foot and ankle, but he also enffers from progressively increasing pain and discomfort.

This means that the anatomy of the several joints which are called upon to perform a function other than that they were accustomed to carry out must alter in consequence of, and in proportion to, the degree in which the directions of the lines of pressure, which is transmitted through the joints, are changed

Under these altered circumstances the joints are unable to carry out their physiclogical functions with the same accuracy and perfection that they did previous to the accident, and this mability is a progressive one, and is accompanied by pain and discomfort which increases rapidly, and is most marked in those who sustain such fractures when past middle age.

There are many other troubles which the patient experiences because of his inability to use the muscles and joints of his leg with the same accuracy, ease, and freedom as before, such as ædema, eczema, ulceration, etc.

Even it there is only a small proportion of truth in what I assert, and in my opinion my experience fully justifies me in making the assertion, it is obvious folly to continue our present methods of treatment, especially as more effectual means are ready to hand

Why should we hesitate for one moment to bring common-sense mechanical principles to bear in the case of simple fractures of the tibra and fibula when most surgeons of the present day would not dream of doing otherwise in the case of fracture of the patella with separation of fragments? May I ask this question? Are we able by operative measures to treat oblique fractures of the tibra and fibula so that there shall be no alteration from the normal in the lines of pressure through the several joints? In other words, can we restore the bones to their original form? This can certainly be done, and at a minimum risk to the patient, by freely exposing the fragments at the seat of fracture, by bringing the surfaces into accurate apposition and retaining them permanently in that position

Such operative measures offer to the patient the following advantages.—

(a,) They at once relieve him from the pain of any movement of the fragments upon one another

28 r

- (b,) They free him from the tension and discomfort due to the extensive extravasation of blood between and into the tissues
- (c,) They shorten the duration of the period during which he is incapacitated from work, since union is practically by first intention and consequently very rapid and perfect
- mechanics in the condition in which they were before he sustained the injury

The two questions which now arise are. Is much difficulty experienced in bringing the surfaces into accurate apposition? and, What is the best method of retaining them in that apposition?

In answer to the first question, it is often very difficult, even when the tibial fracture is freely exposed, to bring the surfaces into apposition by means of manipulation of the limb and of the broken ends, but in every case in which I have used screw pressure, I have succeeded in doing so. At the same time, it is obvious that even though by these means the surgeon may fail in obtaining perfectly accurate apposition, he will get union with very much less displacement than with the ordinary methods, and consequently a correspondingly better result

Now as regards the best means of fixation of the fragments. In my earlier cases I used silver wire, but soon gave it up, as it was open to two great objections. Firstly, as it is necessary to fasten its ends, it could only be passed in certain directions with safety, and to secure it satisfactorily, one was at times obliged to incise the parts very freely. Secondly, one frequently found that no amount of traction upon the ends of the wires would retain the surfaces in accurate apposition after the grip of the lion forceps was relaxed.

Therefore, I decided to treat the bones as one would the broken leg of a table or chair. The surfaces were brought into accurate apposition, and kept in their normal relationship by lion forceps. Holes were drilled above and below the forceps, and screws were driven in The screws could be passed in any direction, and they retained the surfaces in an apposition more accurate and more forcible than I fancy can be obtained by any other mechanical arrangement.

As far as I know, they cause no subsequent trouble, should they do so they can be removed through an incision equal to the diameter of the head of the screw

Although I have limited myself to the consideration of the difficulties experienced in establishing exact continuity of the fragments in oblique fractures of the tibia and fibula, yet occasionally in a transverse fracture of the tibia it may be absolutely necessary to expose the broken ends before they can be brought into accurate apposition

If the conclusions at which I have arrived are correct, it is obvious that any surgeon who resorts to the treatment of oblique fractures of both trota and abula in labourers by manipulation and splinting, without having previously explained to the patient the consequent disadvantages under which he will very possibly labour, and used on him the importance of operative interference, is astrong unjustly to his patient. Much depends, however, upon the age and the character of the occupation of the individual

In the case of compound fractures of these bones, it is equally advisable to produce perfect union, but for obvious reasons the surgeon is unable to offer the patient the same certainty of a successful result as he can when operating on a recent fracture

Though in most of my cases I used the ordinary carpenters' screws, I would not recommend them for such a purpose, for the reason that the threads are often very imperfect, and because the smooth portion exceeds somewhat in its circumsterence that of the portion bearing the thread, and tends to split and fissure the bone. The tendency to itsure of the compact bone is also obviated by the use of a rimer. This instrument is used to increase the size of that part of the hole which carries the barrel of the screw in order to prevent splitting of the bone. Messis, Down Bros made me a set of steel screws, which are most carefully constructed to meet the defects referred to above. The form of the heads is altered so as to obviate the presence of any sharp steel edge immediately beneath the skin. They are also plated, so that they can be boiled without any fear of rust due to those which are not required not being carefully dired.

The screws of various lengths are gauged to two calibres, for each of which a dull and runer are provided.

RITERINGIS — Cases illustrating a new operation for dorsal dislocation of the head of the femui, and some points in the surgery of the hip joint; I he fallacy of the vertical foot-piece, Chronic traumatic arthritis, "Lancet," Jan 30, 1892, and Trans Path Soc, 1886, The causat on and pathology of the so-called disease, theumatoid arthritis, and of senile changes

#### FRIEDREICH'S DISEASE.

Hector W G Mackensie, MD, FRCP

In a recent number of the "American Journal of Medical Sciences" I reported a case of Friedreich's disease, the principal interest of which lay in the fact that it was isolated, none of the patient's

biothers or sisters, of whom there were several, both older and younger, or other relations being affected. During the last few years similar isolated cases of the disease have been reported sufficiently frequently to show that the occurrence of the disease in several members of the same family is a non-essential feature

Among those in addition to myself who have published isolated cases may be mentioned Ladame, Ewait, Dieschfeld, Inglis, McCaw, Chauffaid, Nammack and Mackay?

The ferm increditary ataxia never had much to recommend it Although the occurrence of the disease in certain families was a very striking feature of the cases originally described by Friedreich, hereditary was not exactly the word to express this fact. Direct inheritance, says Gowers, has been traced in only a few instances. Such a group of cases as has been published by Brown to which I shall refer later on, has an equal claim to the title hereditary ataxia, although there are good reasons to believe that it belongs to a different category from Friedreich's disease. The existence of the isolated type is the best reason for discarding the misleading name of hereditary ataxia and using that of Friedreich's disease for a malady the symptoms of which are as well marked and characteristic as those of any disease with which we are acquainted

The fairty of the disease is perhaps not so great as was at one time thought to be the case when the family character was believed to be such an essential feature

The family type was easily recognized, for the simple reason that this remarkable disease was present in several members of the same family

The isolated type is more difficult of diagnosis and is very possibly not recognized on account of the practitioner's want of acquaintance with the essential features of the disease

The combination of symptoms however makes, as I have said, a very characteristic whole, and I think a brief account of the features of the disease and the possible errors of diagnosis which may be made may prove useful to the readers of the "Medical Annual" and possibly bring to light fresh cases of the isolated type

Ettology and Period of Onset.—The onset has been frequently observed after an acute disease, a fall or other injury, one of the eruptive fevers, or typhoid. In my own case the starting point appeared to be measles

Choica has also been recorded at the onset in a good many cases, but the choiciform movements of the disease itself have probably erroneously suggested the diagnosis of choica

Alcoholic excess in the parents has been observed, but is probably an accidental association

There is no apparent connection of syphilis with the disease, unlike whit is the case in locomotor ataxy. The disease hardly ever has its onet after the age of twenty. Many cases date from infancy or early childhood. The two sexes are about equally affected.

The symptoms of the Disease—The main symptoms may be competed under the following heads—(1,) A characteristic form of most ordination affecting the gait, attitude, and movements generally, (2,) ferry movements of the extremities and of the head and neck suggestive of choica, (3,) Progressive parests of the voluntary muscles, 4.) Nestagmus, generally lateral, slight, and only elicited on fixing, 5. The knee-jerks usually absent, (6,) Deformity of feet, (7,) Lateral curvature, (8,) Mitection of speech

The Gat. The gait forms a very characteristic feature of the disease. In a typical case it is unsteady, clumsy and jerky. The patient walks on the front part of the feet with the head and the upper part of the body forward, and sways as he goes along from side to side. It a tracing be taken of his track the latter will be found to be zig zag. Sometimes he will deviate to one side or other. This zig zag course is a peculiarity of the disease and forms a point of distinction from locomotor ataxy.

The swaying and unsteadiness are usually markedly increased on turning

Attitud. The patient stands as a rule with legs wide apart and head inclined iorward, and with a certain amount of swaying. Even with open eyes he may stagger and require to hold fast to some object to steady himself.

Romberg's symptom (the inability to stand steadily with the eyes shut) is usually present, although in some cases the shutting of the eyes does not increase the unsteadiness which is already present

The Jerky Movements -- More or less jerky movements have been noticed by most observers. Sometimes the movements have suggested the diagnosis of choica. Occasionally they have been so marked as to resemble athetosis.

As a rule the movements are of small amplitude and give to all that the patient does a jerky character

Charcot diew attention to an action of the hand when about to seize any object, which he likened to the descent of a bild of piey on its victim. The hand hovers with some jerkiness for an instant of two and then descends rapidly and directly on the object.

# PLYTE X



MIPDICAL ANNUAL, 1897

The movements affect the head and neck as well as the extremities, but, as a rule the face is very little, if at all, affected

In Chauffard's case, already referred to, the movements were those of athetosis

Nystagmus — Nystagmus is one of the later symptoms of the disease, and is a very valuable sign when present. It may not appear for many years after the ataxy. It is produced when the patient fixes an object and the movements are nonzontal and as a rule slight. It has to be carefully looked for. It is needless to say the patient is quite unaware of its presence. Other ocular troubles are almost unknown.

Parent — Muscular power may still be very good when a very considerable amount of ataxy and general jerkiness have developed. It gradually, however, becomes impaired. The parents first affects the lower extremities and is always greatest in them. It tends to progress upwards, but seldom becomes complete.

The Knee-Jerks—Absence of the knee-jerks is the rule in this disease. Ladame goes so far as to say that one will do right always to distrust the diagnosis of this disease when the knee-jerks are not lost, although all the other symptoms would seem to confirm it. The rule however, is not an absolute one, and cases have been published by such authorities as Bramwell, "Senator, "Anderson, "etc., in which the knee-jerks, though slight, have been present. Other observers, Ewart," Goodhart and Carpenter, "Lyman," have published cases in which the knee-jerks have even been increased.

In the series of twenty-one cases with increased jerks already referred to as published by Brown, to the symptoms are certainly atypical and the diagnosis of Friedreich's disease is disputed by Ormerod and Bernhardt 16

Deformity of Foot—Deformity of foot is a very frequent accompaniment of the disease. The foot becomes stumpy and short with highly arched instep and excavated sole, and the toes, especially the great toes, dorsally fleved with prominent extensor proprius pollicis. This condition of equinus probably is the result of over action of the calf muscles with weakening of the antero-lateral group. Through the kindness of Dr. Mackay, of Devizes, I have been supplied with the excellent illustrations showing this deformity (see Plates X, XI).

Deformity of the hands is more uncommon, but the claw-like hand known as main en griffe, has been observed by Bramwell<sup>17</sup> in three cases in one family

Lateral Curvature or scolosis is a very frequent result of the disease. It is most important for the practitioner to bear this fact in mind as well as that of the foot deformity, for these deformities

are concernes the first symptoms to excite the parents anxiety. One finds in the histories of cases of this disease that it has not been uncommon for the patient to be sent to the surgeon in the first place, as my own patient was, on account of curvature or foot detormey. This is well illustrated in the cases recently published at Trestedet. According to Hallion is curvature has been observed it half the cases, and although it generally follows, it sometimes precede, the other symptoms

Afficient of Speech -This is usually a late phenomenon. The purch becomes slow and hesitating, monotonous, drawling and

ranned

Mental Condition — The mond is usually unaffected. In some cases there has been a high development of brain power. One patient took a brilliant University degree. My own patient was bright and intelligent for her station in life. Ladame? has drawn attention to a tendency to improvoked and uncontrollable laughter.

Acquire Symbtoms -- In addition to the presence of these symptoms, one may here draw attention to the absence of certain other various, which serve to establish the diagnosis and to differentiate the dreas from others with which it might be confounded (1,) The absence of any sensory disturbance. There are no anæsthesias, no neural pass, no lightning or guidle pains, (2). There are no visceral various, 3. The papels react normally, (4,) There is no optic attophy. Course and Parateon - The course of the disease is a very slowly progressive one. Its march proceeds from below upwards, attacking the other the legs, trunk, arms, larger, tongue and eyes. The characteristic symptoms of ataxy and tremoi become gradually aggravated. The rare not be appreciably shortened.

The dispute has to be made from cerebellar disease, from locomic or ataxy, from disseminated sclerosis, and at an early stage from choica.

- (1.) In near-tellar Tumon —The recling gait is very suggestive or cerebellar tumon, but the absence of headache, of vomiting, of optic neuritis, and the affection of the aims, the presence of curvature or talipes and the history are usually sufficient to establish the differentiation.
- 2.) From Locomotor Attity—The following points should generally serve to differentiate the two (a,) The age and history, (b,) Symptoms peculiar to Friedreich's disease, absent in locomotor attay. Jerky movements, zig-zag course, nystagmus, affection of speech, curvature, and talipes, (c,) Symptoms peculiar to locomotor ataxy, absent in Friedreich's disease, sensory disturbances, anæs-

# PLATE XI



thesia, lightning pains, visceral criscs, Argyll Robertson pupils, optic attorthy

- (3,) From disseminated Sclerosis—(a,) The knee-jerks nearly always lost in Friedreich's disease are exaggerated in disseminated sclerosis, (b) The tremois of disseminated sclerosis are of very wide amplitude, of violent character and are only excited by muscular efforts, (c) While the disease still permits him to wilk, the gait of the patient with disseminated sclerosis is very different from that in Friedreich's cliscase. In the one it is a general agitation, in the other inco-ordination, (d) Optic atropley, vertigo, contraction of limbs, failure of mental power, apoplectiform attacks are typical of disseminated sclerosis, but are not usually met with in Friedreich's disease.
- (4,) From Chorea—That there is a real difficulty in distinguishing some cases of Friedrich's disease from chorea is shown by the inistakes which even experienced physicians have made in the past. Recent illustrations of this difficulty are given by McCaw, MacLay, Anderson, and Wilson. The principal points of distinction are the following (a.) The jertly movements of Friedrich's disease are never an littral as those or choica frequently are, (b.) The movements are as a whole much slighter in Friedrich's disease than in choica, (a.) As a fulle they do not invade the anascles of the face, (d.) Although the movements of the tongue may be jerky, there is not the characteristic elongating and shortening, nor the sudden withdrawal with the clucking sound so typical of choica, (c) The inco-ordination, gait and attitude, nystagmus, the abolition of the knee-jerks, and the deformities do not occur with choica.

The Pathology and morbid Anatomy — The few autopsies which have been made have shown an ariest of development as well as degeneration of the cord. The cord and bulb are slender and flattened and their volume and sectional area are much reduced

There is sclerosis of the columns of Goll (or postero-median columns) in their whole length, similar sclerosis of the posterior part of the columns of Burdach (postero-lateral columns), while sclerosis of the anterior part is less constantly met with. The crossed (or lateral) pyramidal tracts and the ascending cerebellar tracts are also affected but to a less extent.

There is also atrophy of the cells and fine fibres of the posterior vesicular tract (columns of Clarke)

Professor Senator<sup>12</sup> has lately expressed his belief that arrest of development of the cerebellum is the essential feature of the disease. He looks upon the disease in the cord as secondary. This belief has previously been maintained by Hammond ("Journ of Nerv and

Men. Dis., 1882. No doubt the ataxic symptoms are extremely suggestive of cerebellar disease. As Ladame has pointed out when discussing Hammond - views, the opinion that the disease has its origin in the cerebellum is not borne out by autopsies, and it is contrary to clarical observation, for the symptoms progress from below upwards and not from above downwards.

The VIMENT -For the treatment of the disease little or nothing on he done

Among drugs, Arsenic and Nitrate of Silver have been recommended. Cod liver Oil is useful as helping to promote general nutrition.

It is recidless to say that good diet, fresh an, and healthy surroundings will have a beneficial effect on the course of the disease

RITERINGS -- A case of non-hereditary Emedicielis Disease, "Amer Journ of Med Sci vol evr., pp 371 374, "On Friedrich's Disease, "Drain, 1890, xiii pp 467-537, "A most exhaustive account of the disease with bibliography to 1889, Friedreich's Disease with mereased knee jerk, "Lancet," 1891, "Two isolated cases, "Lancet," vol 1, 1894, p. 1014. Friedrich's Ataxia, its relation to conducting paths in the cord, "Jour Nerv and Men Dis,' New York, 1892, XIX 3) 35; 'Notes of a case in a gul eight years old, "Lancet,' 1893, 11, 414. Midada de Friedricich avec attitude athetoides, "La Semaine Med. 1893, xm. 40 / H. "Arch Pediati New York, 1894, xi, 38 / The isolated type of Friedrich's Disease, "Amer Jour Med. See vol even, pp 151 153, On hereditary ataxia with a series of 21 cases, "Brown 1692, v., 250 82 Iwo cases of Enedietch's At ma in which Incepeiks are not list, "Atlas of Clin Med." 92 13 H 22, There cases with main en griffe, do p 70, very complete account of Friedricch's Discise is given in pt 1861-92 of same work, pp 28-48, and p 178, 1- Ucber hereditare Ataxia, "Bell klin. Woch, 1893 XXX, pp 489-192, tiansla "Canad Pract, 1893, XXII, pp 411-416, 'Friedreich's Ataxia, "Glasgow Med Jouin, 1893, XI, 108-174, "Cases of Hereditary Ataxia, "Clin Soc Trans," 1888, "Invenile of Hereditary Ataxia," International Clinics, 1891, "Criticism on Brown's cases of hered tary atavia, "Brain, 1892, v., "Three cases of Hereditary Ataxia, "Lancet," 1893, ii, 304, "Des deviations vertebrales névropathiques, 'Nouvelle Iconographie de la Salpétrière," 1892, 19 Notes on Friedreich's Disease, "Binning Med Review,' 1893, XXXII, In addition to these contributions to the literature referred to in the text, the following may be mentioned, 2 James, "Edin Med Journ" 1893-94, NNIV, pp 521 527, "Block, Three cases of Friedreich's Disease, "Lancet," 1893 1 139, "Benthall, A case of Friedreich's Disease, "Bitt. Med Jour, 1893, 1, 1163, 23 Baumel, Considérations cliniques sur la maladie de Friedreich, "Meicred méd." 1891, 11, 49-52; 4 Rauziei, De la maladie de Friedreich, "Nouv Montpel. méd," 1893, 11, 725-748

19

#### FURUNCULOSIS.

T Colott Fox. MB

Van Hooin, washes the whole body with **Potash** Soap and waim water, then cleanses the furuncles and surrounding parts with sublimate lotion (i in 1000) and covers these lesions with a mercury and carbolic acid plaster, which he changes every day. When the furuncles open he expresses the contents, and washes them with sublimate. If there was no fluctuation resolution occurred rapidly, but if suppuration ensued the course was more extended, but very satisfactory. New lesions were prevented.

Allan Jamieson recommends Ichthyol Yarnish (1 part ichthyol to 3 of water, to abort furuncles

Debouz, relates that Yeast is a very popular remedy in the country-side for recurrent boils and carbuncles. He has therefore tried it largely and met with astonishing and rapid successes. Sometimes the yeast gives rise to prolonged eructations and diarrhea. The dose is 2 or 3 tablespoonfuls diluted with a glass of beer at meals

The following internal treatment has been recommended :-

R Chlorate of Potash | Tinct of Calumba 5188 Lactate of Iron | āā gr xxiii | Simple Syrup 510 M Ft Mist A dessit spoonful to be taken thrice daily

Su James Paget in his address to the Abeinethian Society this year, 1894, in illustration of his thesis refers to the subject of recurrent crops of boils, and says Quinine is believed to be chiefly effective upon those in whom disease has its origin in some distant affection of malaria, Liquor Potassæ for those who were gouty or had eczema, Yeast in others, though how it acts is uncertain

Shoemaker gives the following mixture for recurrent boils -

By Chlorate of Potash Lactate of Iron and gradient Strain Lactate of Iron and gradient Strain Simple Syrup Sive Three teaspoonfuls to be given in the twenty-four hours,

REFERENCES — "Viatsch," t v, 7, p 213, 1894; 2" But Journ Derm," Jan 1894, 3 Quoted "Jouin de Méd et de Chir Piat," June 10, 1894

Synopsis—(Vol 1894, p 301) Boric Acid, to to 15 gis daily in two doses, internally and washing with hot 4%, solution of the acid R Chloral Hydrat, 5jiss., Aq, Glyc, āā 5x, M Soak a tampon in the solution and cover the boil, renewing constantly R Chloroformi, 5j. Essence of Cloves, \$\pi\_75\psi\_5\$v, Creasote, \$\pi\_v \psi\_{\substack{\text{N}}}\psi\_{\substac

## GALL BLADDER (Surgery of) A W Mayo Robson, FRCS

In a paper given before the International Medical Congress at Rome, and since published in the "British Medical Journal," April 28, 1801, we gave an epitome of seventy-eight operations which we had performed on the bile ducts or gall bladder, which number has since increased to close on a hundred. We then remarked that our conclusions were based on a much larger number of cases, which we had seen or been immediately concerned in in consultation with colleagues or other medical friends.

Among the prominent symptoms and complications of cholelithiasis which we have had experience of are —

- (1,) Spasms or biliary color without jaundice, the attacks being repeated at longer or shorter intervals, coming on without apparent cause, usually starting in the epigistrium or under the right ribs, and radiating to the right scapular region or to the shoulder, and often ending in vomiting, which usually gives relief
- (2,) Collapse, due to the intensity of the pain, which we have known to cause death without any other complication
  - (3,) Spasms followed by evanescent icterus
- (4,) Pain followed by persistent jaundice and enlargement of the liver, which may give use to the suspicion of malignant disease, but which may usually be diagnosed from cancer by the presence of the next following symptom
- (5, Attacks of pain accompanied by a feeling of chilliness of a 11501, and followed by increased temperature and then by profuse perspation, the whole attack resembling one of ague
- (6) Distension hydrops) of the gall bladder without jaundice, ordinarily due to impaction of gall stones in the cystic duct
- (7,) Distension of the gall bladder accompanied by persistent jaundice, which always gives rise to a suspicion of malignant disease, either of the liver, or bile ducts, or of the head of the pancieus
- (8,) Ileus due to atony of the bowel, apparently dependent on the pain producing a profound impression on the nerves of the abdomen, leading to enormous distension and to the symptoms and appearance of acute intestinal obstraction
- (9,) Acute intestinal obstruction dependent on (a,) Paralysis of gut due to local peritonitis in the neighbourhood of the gall bladder, (b,) Volvulus of small intestine, (c,) Impaction of large gall stone in some part of the intestine after ulcerating its way from the bile channels into the bowel
  - (10,) General hamous hages the result of long continued jaundice,

either dependent on gall stones alone, or on cholelithiasis associated with malignant disease

- (11,) Persistent vomiting, with such serious digestive disturbances as to threaten death from exhaustion
- (12,) Localised peritonitis producing adhesions, which may then become a source of trouble even after the gall stones have been got rid of. We believe that nearly every attack of bihary colic is accompanied by adhesive peritonitis, as our experience has been that in all cases, where there have been characteristic services adhesions are found.
- (13,) Dilatation of stomach dependent on adhesions around the pylorus
- (14,) Ulceration of the bile passages establishing a fistura between them and the intestine
  - (15,) Abscess of the liver
  - (16,) Localised peritonial abscess
  - (17.) Abscess in the abdominal walls
- (18,) Fistula at the umbilious or elsewhere on the surface of the abdomen
  - (19,) Empyema of the gall bladder
  - (20,) Suppurative choleangitis
  - (21,) Septicæmia or pyæmia
  - (22,) Gangiene of the gall bladder
- (23,) Perforative pentonitis due to ulceration or to rupture of the gall bladder or ducts
  - (24,) Extravasation of bile into the general peritoneal cavity
  - (25,) Pyelitis of the right side
  - (26,) Cancer of the gall bladder or of the ducts
  - (27,) Subphienic abscess
  - (28,) Empyema on the right side
  - (29,) Pneumonia of the lower lobe on the right side
- (30,) Chronic invalidism and inability to perform any of the ordinary business or social duties
- (31,) Pain dependent solely on adhesions, the result of previous attacks of gall stones

A study of cases operated on shows that where medical means have failed, surgery holds out very good hope of success in nearly every complication of cholelithiasis, if the patient be not too much exhausted to permit of any major operation

Cases complicated with malignant disease, however, are decidedly unfavourable ones for operation, as has been shown in another place. First, because the subjects of cancer are not only as a

rule cachectic and worn down by disease before the surgeon is called in, and therefore unfitted to bear the shock of any operation, but, secondly, because such patients are particularly prone to hæmorthage at the time of the operation, or subsequently, which may be uncontrollable

We take the opportunity of correcting an observation made several year, a 30 in a paper read before the Chinical Society of London, which we have since found to need qualification. We then emarked that there was more risk in operating on profoundly jaundiced patients, or account of hemorrhage. While we still think there is greater risk in operating on such cases, we have found by ample experience that the danger is not samply from the presence of jaundice, but from the presence of jaundice combined with malignant disease, and we feel that we cannot emphasise too strongly the fact that operations undertaken on patients with inalign int disease of the head of the pancreas, of the bile ducts, or of the liver, if combined with deep jaundice, are attended with very great risk, and that in such cases the great risk is not compensated for by the slight respite which may be given by establishing a biliary fistula, as recommended by some able surgeons

It may, however, be worth remarking that, in order to avert the danger of harmorrhage in jaundiced patients, we have found the administration of chloride of calcium for a few days before operation to make the blood more plastic and to lesson the tendency to bleeding, both at the time of operation and subsequently

For this the apeutic measure we are indebted to Di A E Whight's researches on the "Coagulability of the Blood," published in the "Butish Medical Journal for December 19th, 1801 After operation the drug may be continued either by the mouth or by nutrient enemata. for some time with idvantage. In joundiced cases we prefer to heature all bleeding parts, rather than to trust to pressure forceps for haemostasis. The subject of diagnosis is too important to pass over in a few words, and too long to discuss in a short paper, but we would remark that there are two main points for consideration. First, are gall stones present? Secondly, Is there malignant disease? A careful consideration of the previous history will usually enable the former question to be answered, and especially the history of attacks of "spasms' preceding other complications The latter question cannot, we believe, be always positively answered, but as a rule the preliminary history of "spasms," of pain preceding the jaundice, and of intermittent pyrexia, with the absence of enlargement of the gall bladder, will point to cholelithiasis

It may be worth noticing that in all the cases of malignant disease with jaundice on which we have operated the gall bladder formed a perceptible tumour, whereas when the jaundice was dependent on gall stones there was no marked tumour present.

Another diagnostic point worth remarking is that in cholchthasis there is usually tenderness on pressure over some point between the eighth or ninth costal capitage, and the umbilious. In three cases the pain in the so can edit space is the been referred to the left side, thence radiating to the left scattuar region and in such cases we have to find the plores adherent to the gail bladder or costal duct. The so-cauch diagnostic operations of sounding for gail stones and aspiration of a distended gall bladder we believe to be futile and dangerous, and much better replaced by a small exploratory increasing when treatment can at the same time be carried out if required

TREATMENT—After included treatment has been fairly tried and failed, we think most surgeons are agreed that surgical measures should be resorted to. While choice, stotomy is generally recognized as the operation to be aimed at in the treatment of affections of the gall bladder or bile ducts, especially in cholchthiasis, it is often impossible to say what operation will have to be done until the abdoments opened. The indications for operating would seem to us to be as follows—

- (1,) In frequently recurring biliary colic without jaundice, with or without enlargement of the gall bladder
- (2,) In enlargement of the gall bladder without jaundice, even if unaccompanied by great pain
- (3,) In persistent jaundice ushered in by pain, and where recurring pains, with or without ague-like prioxysms, render it probable that the cause is gall stones in the common duct
  - (4,) In empyema of the gall bladder
  - (5,) In peritonitis, starting in the right hypochondrium
- (6,) In abscess around the gall bladder or bile ducts, whether in the liver or under or over it
- (7,) In some cases where, although the gall stones may have passed, adhesions remain and prove a source of pain and illness.
  - (8,) In fistula, mucous or biliary
- (9,) In certain cases of jaundice, with distended gall bladder dependent on some obstruction in the common duct, but in such cases the increased risk must be borne in mind, as malignant disease will probably be the cause of the obstruction

Supposing the case to prove a suitable one for cholecystotomy, and the gall bladder and ducts can be cleared without great difficulty

by means of forceps within and the fingers outside the ducts, the opening in the gall bladder can be sutured to the aponeurosis, which we think preferable to skin fixation, and drained, which we infinitely prefer to immediate suture of the opening

But if the casts connot be cleared, what may be done?

- (5) Chard thornty or crushing of the gall stones in situ by means of the harm and thumb, or by padded forceps, an operation which we have the acceptably performed on numerous occasions, and which we trefit to the more formulable procedure of meising the ducts or of the charge to helder to the intestine.
- contributed to be best effected by means of a rectangular eleft parate needle. A dramage type should always be inserted into the right kidney pouch in the cases.
- (c) Cholecystenterostomy, or the making of an anastomosis between the gall bladder and intestine, easily effected if the gall bladder be dilated, with difficulty performed if the gall bladder be contracted, as is often the case. We have performed this operation three times, with immediate success and recovery in all, and with complete and persament relief in two. The method we have employed startly recars of the decalented bone bobbin, which enables the equation to records a the anastomosis rapidly, as only two sutures have to be employed, but in this operation we shall employ in future the Murphy patter, or some modification of it
- (d) The data injection of fluids after an interval of some days, though the choices dotony opening, which will either soften or dissolve the concretions. For this we have used hot water, a solution of tallor holate of soda, ether, and other and turpentine, with more or less success, but we think that Dr. Brockbank's suggestion to use an intertion of olive oil or a 5 per cent solution of sapo animalis or oleic acid may be worth trying more fully.
- Cholecystectomy may be required as a secondary operation in cases of stricture of the cystic duct, the common duct being free On three occasions in which we have excised the gall bladder, it has been for mucous fistula depending on stricture of the cystic duct following on gall stones, and all the cases were completely and permanently cuted

Cholecystectomy can seldom be advisable or necessary as a primary operation in gall stones, and extremely rarely possible in malignant disease. In cholecystotomy, where it is impossible to bring the margins

of the incised gall bladder into the wound, and where the parietal positioneum cannot be tucked down to meet the edges of the opening, we have made a tube of the omentum, but in such cases no hesitation need be felt in trusting to a drainage tube, as the peritoneal cavity soon becomes occluded around the drain, and there is little or no tendency to the passage of bile among the viscera, so that a suprapulic drainage opening is quite unnecessary. If thought desirable Murphy's, button drainage tube may be used in such cases. With very tew except ons we have found a vertical incision along the upper part of the right linea semilunaris to give ample room, but if required we have not bestaten to get further room by a transverse cut in addition

Suture of peritoneum, aponeurosis, and skin by separate stitches effectivally guards against ventral herma, if the patient be kept recumbent for from twenty one to twenty-eight days, and if a firm oval pad be worn under a belt for a few months subsequently.

In all cases strict antiseptic precautions have been observed, and the abdomen has been left as clean and dry as possible

In conclusion, we would emphasise, that with due skill and adequate care, operations on the gall bladder and the bile duets are among the most successful of the major operations, but as many of them are extremely difficult, and as it is impossible to say beforehand whether any case may not prove so, we think such surgical work should be undertaken only by those who have had experience in abdominal surgery, and who have witnessed or helped in several operations of As soon as this is the case we shall cease to witness the varying rates of mortality in the hands of different operators, of from 50 to almost o per cent, and shall probably find that, excluding cases of malignant disease associated with jaundice, the all-round mortality will not exceed 5 per cent. We hope the time is not far distant when it will be fully recognized that though cholelithiasis, so far as its causes and its early treatment are concerned, is distinctly a condition for medical treatment, it is both unjust to the patient and unfair to the profession to continue medical treatment until serious complications supervene, or the patient is almost, if not quite, past relief, before the aid of surgery is invoked

Gall Stone obstructing the Hepatic Duit—Di Wyeth¹ related the history, and showed the specimen from a case of recurrent gall stone obstruction in which the gall bladder was found collapsed and empty at operation. The patient died unrelieved, and a post-mortem examination revealed a small concretion in the peritoneal cavity, and a stricture of the hepatic duct where the stone had ulcerated its way through

We have previously described the crushing of a stone in the hepatic duct and another case in which one was suspected, but this case is probably the first in which a stricture of the hepatic duct has been proved

On Murphy gave a piper before the International Congress, at Rome, advolating the operation of cholecystenterostomy in cases of obstructed bile ducts, and he proved that by means of his button this could be done quickly and with great probability of success. At the same meetric, we argued the desirability of cleaning the ducts where possible, and only reserving the anastoniosis operation for exceptional cases, where that was impossible as in stricture or where impracticable as an extreme explusivor where a prolonged operation might be tatal

The operation advocated by 10. Murphy is undoubtedly the quickest and best littleito suggested, and we shall certainly avail ourselves of it in those rare cases where cholecystotomy is not the better operation see Figs. 14, 15,

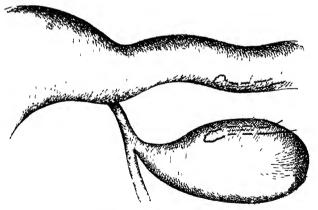


Fig. 14-Running threads in position in gall bladder and duodenum

Gangrenous Chologystitis —Lucius W Hotchkiss\* reports a case of gangrenous cholocystitis in a man, aged nineteen. Symptoms during life were those of acute peritonitis with tumour in right hypochondrium.

At the operation, the fundus of the gall bladder was found to be thin, friable, and gangienous

Death occurred seven hours after operation, and post-mortem the gall bladder was found much dilated and completely divided by a

thin septum, and contained about twenty gall stones facetted and about the size of a hazel nut, one of these occluded the cystic duct.

The walls of the neck and body of the gall bladder were thick and hypertrophied, while at the fundus gangiene had supervened, no perforation however consted

The case is remarkable in that a condition of cholchthiasis, with such advanced hypertrophic changes in the walls of the gall bladder, as usually accompany a case of long standing, should be found in a boy of tracteen. The author can find no description of gangienous

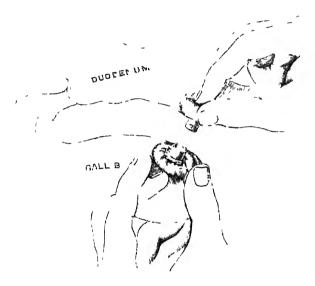


Fig. 15 —Showing method of holding parts while approximating button in chelecyst-cuterostomy

cholecystitis as a separate entity, and attributes the occurrence of gangrene in this case to the pressure of the enormous exudate within the walls of the gall bladder, and to a consequent stable in the vessels

Di Willy Meyer also mentioned a case of compyema of the gall bladder with abscesses in its inflamed walls

Hourglass-shaped Gall Bladder—Dr Pilcher, at the New York Medical Society, showed a case of hourglass-shaped gall bladder, the upper and larger part was distended by a stone, the lower portion contained glarry flocculent fluid

We operated lately on a case of this kind in which the upper cavity

contained several concretions completely shut out from the gall bladder proper, which also contained other stones and glany mucus

J Mayers Karlsbad, as the result of experiments on dogs, concludes that an unhealth condition of the mucous membrane forms a nece are anteredent to the formation of gall stones in the gall bladder.

We have on exertal o casions pointed out the ill effects of peritorical activators, and in last verifs "Annual activated to a paper we have on the above that the Clinical Society. The subject has now received from attention, and we would especially refer to the record of a major of the exibition from Lemander," in which the removal, by operation, or comes ons in the appear part of the abdoinent, gave relief to interact pairs and disjustifient embodies, and to a paper by Mi-Bidwell," in which he describes the embod of achievous between the stomach and gall bladder as curing severe epigastric pairs although no gall stones were found.

We have recently operated on a case where such adhesions had caused a kink in the stomach, causing a vertical furrow from the lesser to the greater curvature which was completely eradicated on separation of adhesions between it and the gall bladder.

Late Intestinal Obstruction due to Gall Stones—In August of this year (1894, we removed successfully, by abdominal section, a large



Fig. 16—The distone weight, 17 oz , leagth, 2 m.; of Scarborough,

gall stone inpacted in the ileum of a lady, igcd sixty, who had been obstructed for a week, and who had had frecal vomiting for four days. The diagnosis was suspected, but the acute symptom rather resembled a volvulus or band than the real cause. I he patient is now perfectly well.

Mi. Eveiley Taylor, of Scarborough, also had a successful oper-

ation, and as the concretion, in his case, was one of the largest, if not the largest on record, we append an illustration of it taken from a photograph (Fig. 16)

Mr. Arbuthnot Lanes records the successful removal of a large

gall stone which was impacted in the small intestine eight feet from the stomach

Korte' also reports a successful case in which the concretion was removed from the bowel 25 cm, above the ileo-caecal valve

We think this series of cases, together with others previously reported, goes far to do away with the arguments advanced by those who set their faces against operative interference especially as in most of these cases at is impossible to be certain of the course until the abdomen is opened.

Replace of Title Duct due to Injury — Mr. Battle' reports the case of a box aged six months, who had been run over by a cab. At first there were no definite signs of visceral injury, by the seventh day, however, he was decayly jaundiced with symptoms of acute peritoritis. Abdominal section was done on the eighth day, and a large quantity of almost pure bile evacuated, but no injury to the bile apparatus could be detected. He died on the muth day, and post-mortera, the liver and gall bladder were found intact, but the common bile duct was found completely torn through. Mr. Battle considers this the first recorded case of such an accident

Dr George P Biggs has reported a case of rupture of the cystic duct due to ulceration by a gall stone, with subsequent fatal peritonitis, the cause being found on post-mortem examination

Pap lloma of Bile Duct — Di Rolleston' showed to the Pathological Society of London, microscopic sections of a growth removed by Mi Bennett during cholecystotomy, from the common bile duct — Microscopically, it resembled a glandular polypus of the intestine — The papilloma was apparently the result of the irritation caused by an impacted gall stone

References — "Ann of Suig," June, 1894, "Annals of Suig," Feb 1894, "Ibid, Maich, 1894, "Unchow's Archiv," 1894, 5" Ann of Suig," June, 1894, "Lancet," Maich 10, 1894, "Ibid, August, 1894, "Bit Med Jouin," March 31, 1894, 5" Lancet," April 7, 1894, 10 Ibid, May 19, 1894

GERLIER'S DISEASE. Allan McLane Hamilton, MD, New York Salzer' has recently given an account of the eve affection in this disease. The attacks began with a sharp pain in the back of the neck, extending downward, there was confusion and cloudiness of vision and more or less complete paralysis of the upper lip with muscular weakness in the lower. The slight paresis passed off in about ten minutes but there was a tendency to recurrence, while some of the visual disturbance was permanent. Patients had a diminution of visual acuity for distance, and sometimes a fullure of accommodation.

Hyperamia, bluring of the edges of the disc, patches of chorodoretinal atrophy, contraction of the visual field, diminished field for colours and diplopia were observed, but in the interval between the attacks no defect in the arrangement of the ocular movements could be detected. It is believed that the changes in the optic nerve and retina and the symmetrical defects in the visual fields are explained by a cortical exion affecting the visual centres.

FITTERNELS - " Ann d Oculistique, Jan 1894, referencem "But Med Journ March 17, 1994, "Anner Med and Sur Bul," July 1, 1894

## GLEET

## I Hurry Fenterck, F R.C.S

Starring Unitered Intertions for Classic attended - Mr Hurry Fenwicks writes upon the advantage of combining dies with methral injections for obstinate elect. "It will be admitted the asserts "that by far the greater number of cases of conorthea recover under the most ordinary of routine treatments, but it will be as readily conceded by most practitioners that a small proportion of gleets prove intractable, and drift from one hand to another. The morning discharge in these obstinate cases varies in significance. In the smaller number it is mere mucus -the secretion of the recently over-stimulated unethial gland. In the larger proportion, however, the thin gleety discharge em mates from definite patches of concestion, from granular erosions, or from traces of inflammation which occur behind some stricture of large cabbie. Such changes of surface may be seen in all parts of the entire canal, from the opening of the bladder to the meatus These diseased patches shed off the shieds of muco-pus which are so often seen in the morning urine in the shape of white flakes, banners, or threads. It is difficult for those who do not employ the electric methioscope to say whether these patches or granular erosions are s.tuated in the penile uiethia, and are therefore accessible and cuiable by ordinary urethral injections, or whether they are located in the membrano-prostatic sections, and are therefore beyond the reach and control of the injections which the patient is able himself to employ The additions of dyes to the injection settles this point for us, for by such means the flakes or threads are dyed. For some years I have been in the habit of providing each hospital patient with a colouring injection, in order to save the time which is necessary for the examination of the deep or posterior urethra with the electric prostatoscope The patient brings me the first part of the morning urine, and, if only coloured threads are visible in it, I know that the penile urethra is at fault, because in only about 6 per cent can an injection, given without undue force, pass the opening of the membranous urethra. If only

white threads appear, I realise that foci of the disease are in the deep or posterior urethia, and I at once attack the membranoprostatic sections of the canal Generally there is a mixture of white and coloured threads, and this bears out the more advanced teaching concerning gleet, that the posterior unethrais, in a large majority of cases, affected as well as the anterior. The dyes I use most commonly are to catechar orm ad 5, and the hound extract of red gum may-my ad 31, watery solution of methyl volet, 1 m 3,000, can also be employed. Of cotase, if three is not an object, the practitioner can wash out the pende arethra himself into one glass, and cause the patient to pass water into another (Coldenberg's method). By this means he will be able at once to see whether the posterior section is involved as well as the anterior.' It is only tau to say that Lohnstein. asserts that in ninety-four cases the deep methia was reached in thirty-seven times by an ordinary injection, but Goldenberg refutes this 4

REFIRENCLS—" But Mcd Journ, p. 12, part 1, 1894, Coldenberg, "New York Med Record," 1888, Lohnstein, "Deut Med Woch," No. 44, 1893, "Goldenberg, "Centralblatt fin Harn und sexual organ," Bd. v. Heft 7, 1894

## GONORRHŒA.

Synopsis —(Vol 1894 p 305) Injections of Silver Nitrate, r to 2000 or 4000, Ammonium Sulph-ichthyolate, r to 100, Sublimate, r to 30,000 or I to 20,000 Hutchinson uses first an injection of Zinc Chloride, 2 grs to 31, next, Sandalwood Oil Capsules, lastly, a purgative night dose of Epsom Salts with Bromide of Potassium Saalfeld treats painful erections with Lupulin, Camphor, Monobromate of Camphor and a combination of Antipyrin with Bromide of Potassium (15 grs to 15 grs respectively), local washing and injection of Thallin Sulphate, ion or weaker, four to six times daily, or Zinc Sulpho carbolate, 2 or 3 parts to 1000, or a mixture of Zinc Sulphate 20 of 1 part, Acetate of Lead 1 of 1 part, Distilled Water 100 parts, or Zinc Sulphate, Carbolic Acid and Alum, each 2 or 3, Aq 100 parts, or Potassium Permanganate 3 to 100, or Resorcin 1 or 2 to 100, or Solution of Tannin 5 to 25 to 100 as injections In addition Salol, Oil of Santal, Copaiba and Cubebs may be used internally Glenn used R.Zinc Chloride, gr ;, Zinc Iodide, gr j, Aq 3j, as an injection Christian avoids injections and uses a capsule Containing Oil of Sandalwood, 5 drops, Oil of Copaiba, 5 drops, Oil of Cinnamon, 1 drop, 4 to 8 capsules daily For "morning drop" ar injection of Zinc Sulpho-carbolate and Hydrastis is useful. Infante uses fluid Extract of Llareta, giving a table spoonfuls daily of 20, mixture of the extract in water Indasson employed Ichthyol for unct units in women, and gonorthical cervical catarrh, 10% ointment is used being weakened for application to the female uiethra Gintzoll employs Salol, r 5 grm, with a few drops of Peppeimint Oilthree or four times a day with Cubebs if destred, and for an injection R. Salol, 10 gtms, Gummi Arab, 50, Aq. dest, 20000, M. Ft. Emuls, Inject three or four times a day. Permanganate of Potash, I to 4000 solution, injected through a rubber catheter Hyperamia, bluring of the edges of the disc, patches of chorodoretinal atrophy, contraction of the visual field, diminished field for colours and diplopia were observed, but in the interval between the attacks no defect in the arrangement of the ocular movements could be detected. It is believed that the changes in the optic nerve and retina and the symmetrical defects in the visual fields are explained by a cortical lesion afterting the visual centres

RIFIRING: "Ann d Oculistique," Jan 1894, 1eference in "Brit Med Journ, March 17, 1894, "Amer Med. and Sur. Bul," July 1, 1894

## GLEET

E Hurry Fenwick, FRC.S

Staining Urethral Injections for Obstantie Gleet -Mi Hurry Fenwicks writes upon the advantage of combining dyes with methial injections for obstinate glect. "It will be admitted" he asserts "that by far the greater number of cases of gonorihea recover under the most ordinary of routine treatments, but it will be as readily conceded by most practitioners that a small proportion of gleets prove intractable, and drift from one hand to another. The morning discharge in these obstinate cases varies in significance. In the smaller number it is mere mucus—the secretion of the recently over-stimulated uiethral In the larger proportion, however, the thin gleety discharge emanates from definite patches of congestion, from gianular erosions. or from tracts of inflammation which occur behind some stricture of large calibre. Such changes of surface may be seen in all parts of the entire canal, from the opening of the bladder to the meatus These diseased patches shed off the shieds of muco-pus which are so often seen in the morning usine in the shape of white flakes, banners, or threads. It is difficult for those who do not employ the electric urethroscope to say whether these patches or granular erosions are situated in the penile urethra, and are therefore accessible and curable by ordinary urethral injections; or whether they are located in the membrano prostatic sections, and are therefore beyond the reach and control of the injections which the patient is able himself to employ The additions of dyes to the injection settles this point for us, for by such means the flakes or threads are dyed. For some years I have been in the habit of providing each hospital patient with a colouring injection, in order to save the time which is necessary for the examination of the deep or posterior uiethra with the electric prostatoscope The patient brings me the first part of the morning urine, and, if only coloured threads are visible in it, I know that the penile unethia is at fault, because in only about 6 per cent can an injection, given without undue force, pass the opening of the membranous urethra. If only

white threads appear, I realise that foci of the disease are in the deep or posterior urethra, and I at once attack the membranoprostatic sections of the canal Generally there is a mixture of white and coloured threads, and this bears out the more advanced teaching concerning gleet, that the posterior urethra is, in a large majority of cases, affected as well as the anterior The dyes I use most commonly are treatechy many ad 51, and the liquid extract of red gum miv-mx ad 31, watery solution of methyl violet, I in 3,000, can also be employed Of course, if time is not an object, the practitioner can wash out the penile wiethra himself into one glass, and cause the patient to pass water into another (Goldenberg's method) By this means he will be able at once to see whether the posterior section is involved as well as the anterior" It is only fair to say that Lohnsteins asserts that in ninety-four cases the deep urethra was reached in thirty-seven times by an ordinary injection, but Goldenberg refutes this 4

REFFRENCES—" "But Med Journ," p. 12, part 1, 1894, 2 Goldenberg, "New York Med Record," 1888, 2 Lohnstein, "Deut Med Woch," No 44, 1893, 4 Goldenberg, "Centralblatt fur Harn und sexual organ," Bd v, Heft 7, 1894.

## GONORRHŒA.

Synopsis — (Vol 1894, p. 305) Injections of Silver Nitrate, 1 to 2000 or 4000, Ammonium Sulph-ichthyolate, 1 to 100, Sublimate, 1 to 30,000 or I to 20,000 Hutchinson uses first an injection of Zinc Chloride, 2 grs to 31, next, Sandalwood Oil Capsules, lastly, a purgative night dose of Epsom Salts with Bromide of Potassium. Saalfeld treats painful erections with Lupulin, Camphor, Monobromate of Camphor and a combination of Antipyrin with Bromide of Potassium (15 grs to 45 grs respectively), local washing and injection of Thallin Sulphate, 1%, or weaker, four to six times daily, or Zinc Sulpho-carbolate, 2 or 3 parts to 1000, or a mixture of Zinc Sulphate  $r_0^2$  of 1 part, Acetate of Lead  $r_0^4$  of 1 part, Distilled Water 100 parts, or Zinc Sulphate, Carbolic Acid and Alum, each 2 or 3, Aq 100 parts, or Potassium Permanganate 3 to 100, or Resorcin 1 or 2 to 100, or Solution of Tannin 5 to 25 to 100 as injections In addition Salol, Oil of Santal, Copaiba and Cubebs may be used internally Glenn used R. Zinc Chloride, gr &, Zinc Iodide, gr j, Aq z̄j, as an injection Christian avoids injections and uses a capsule containing Oil of Sandalwood, 5 drops, Oil of Copaiba, 5 drops, Oil of Cinnamon, I drop, 4 to 8 capsules daily For "morning drop" an injection of Zinc Sulpho-carbolate and Hydrastis is useful Infante uses fluid Extract of Llareta, giving 2 tablespoonfuls daily of 2% mixture of the extract in water Jadasson employed Ichthyol for urethritis in women, and gonortheal cervical catarrh, 10% ointment is used being weakened for application to the female uiethra Givtzoff employs Salol, r 5 grm, with a few drops of Peppeimint Oil three or four times a day with Cubebs if destred, and for an injection B Salol, to grms, Gummi Arab, 50, Aq. dest, 20000, M Ft Emuls Inject three or four times a day Permanganate of Potash, I to 4000 solution, injected through a rubber catheter

with lateral perforations. Carvallo uses: R (r,) Sol. of Lysol (r°,), roo grms., Sydenham's Landauum, 3 grms., M. (2,) R Sol. of Lysol (r°,), roo grass., Cocame Chlorhychate, 50 grm., M. These injections are allowed to remum in the methra four or five minutes, and are used three times daily

#### GOUT.

Similar -(Vol 1804, p. 300). Hargues Salicylate of Soda, gr. 15, every three or four hours for intestinal gout

#### HÆMATEMESIS.

Sinct is,- (Vol. 1804, p. 300). If tongue is clean and little or no epigatine puriexits, Handrod gives Magnesia Sulphate with Sulphate of Iton, Sulphune Acid, Nux Vomica, and perhaps small doses of Digitalis. If particle carative exits he gives an alkaline aperient of Soda Bicarbonate in full doles, Soda Sulphate, Magnesia Sulphate and Nux Vomica, omitting non or event it in pill

## HÆMATURIA.

Sympsis - (Vol. 1944, p. 3104) Tuttle advises powdered Cinnamon

#### HÆMOPTYSIS.

Synopsis - (Vol 1894, p. 312) In severe and stubborn cases, Eklund advises B. Ext. Hamam Virg liq, Ext. Hydrast Can liq, aā 5ijss, Ext. Glycyrrhizæ, Aq dest, aā 3ijss—vij, M. Sig—5ij—3ss h. alt. Acetate of Lead, gr. 3½, twice daily, with Morphia Acetate, gr. 15—15

## HÆMORRHAGE (Post Partum).

Sympton -- (Vol. 1804, p. 313) Tarmer employs the following injection before resorting to plugging R Iodine, 30 parts, Iodide of Potassium, 1 part, 10stilled Witer, corports

#### HÆMORRHOIDS.

Shift -(Vol 181), p 315) After a motion bathe with warm water and apply R I ng Ox Hydrarg Rub, r part, Ung Cetacei, 3 parts, M Chrysarobin, gr. j. Coca butter, gr. xxx., Iodoform, gr. j. Belladonna Extract, gr. j. Ft. Suppositoric. R Chrysarobin, gr. xiv., Iodoform, gr. v. Belladonna Extract, gr. v. Vaseline, 5ss., M. An antiseptic and soothing omtinent. R Iodofo of Potassum, gr. xxx to lxxv., Powdered Iodine gr. v. Glycerin 5x., M. For external use. Hot Sitz-bath daily, and application of Tampons covered with the foregoing glycerole.

# HAY FEVER. (See also "Fevers")

Symptoss.— (Vol 1894, p 318) Where the Schneiderian membrane is at fault application of Galvano-cautery is best, or use of Chromic or Monochloracetic Acids

# HEADACHE. Allan Mc Lane Hamilton, M D, New York

Lauder Brunton has expressed himself in regard to his experience with Salicylate of Sodium and Potassium Bromide in headaches beginning in the morning, and notes the extreme irritability at night which is the early precursor of the cephalgia which begins the following morning. Such disturbance is accompanied by drowsiness, disin-

clination to get up, and the complaint of frontal or temporal headache, which increases during the day until it becomes almost unbearable in the afternoon or evening, and disappears with sickness or nausea, leaving behind a certain amount of exhaustion. He recommends a mixture of bromide of potassium and salicylate of sodium to be taken the night before or early in the morning. The dose of the former is to be 35 grains, with 5 or 15 grains of the latter in half a tumblerful of water. The dose should be repeated if relief is not obtained

Gradle<sup>2</sup> places great reliance upon the use of **Cannabis Indica** in migraine, and believes that one quarter to one third of all patients are permanently benefited by its use. He gives two or three doses at six hours' interval, continuing its use in moderate doses twice daily; and should the case be one where the pain is not immediately relieved he places great confidence in **Antipyrin**. He has little faith in any other remedy except chloral, which he believes to do good when it is possible to induce sleep. He also calls attention to the necessity of detecting optical defects.

Thomson, of New York, has recently strongly recommended the use of Ergot in migraine, which for a long time has been successful in the hands of many therapeutists

The connection of headache with diseases of the nose has again been illustrated by Snow, who has relieved long standing and violent hemicrania by the removal of diseased turbinated bones and by the performance of other intra-nasal operations

Verneuils has written an extensive article upon headache, in which he insists that its pathology always consists in a very sensitive condition of the sympathetic nerves controlling the peripheral vessels of the cranium and brain, that is to say, in angio-neuroses. He believes that the seat of pain in headache is always in the dura and not in the cortex cerebil, and that it is produced by increased intra-cranial pressure

REFERENCES — "The Practitioner," Feb. 1894, p 104, 2" Med News," March 3, 1894, 3" Med Record," March 17, 1894, 4" New York Med Journ," March 31, 1894, 5" Revue Générale de Chinique et de Thérapeutique.

# HEADACHE (Referred) and FACEACHE.

Head discusses the pain and tenderness produced by visceral disease on the surface of the head and neck. In a previous paper he had described similar phenomena at a lower level. He considers that the locality of pain is instructive only when the area of tenderness, with which it is usually associated is known. In determining the areas of any particular organ of the head the method adopted

was (1,) To exclude all pain and tenderness in the thorax and abdomen; (2,) To note the presence or absence of general states, for example, and mix, (3.) To exclude disturbances of other organs than the one under investigation. (4.) To note the circut of treatment directed to remove the initial visceral lesion. Converse precautions were taken when determining the relation of pain and tenderness in the head and neck to disturbances of thoracic and abdominal organs. The author seeks to establish that each organ in the head -nose, eye, ear, teeth, tongue, salivary and other glands, tonsils, layers, and the brain itself-stands in relation to one or more areas on the surface to which pain is referred, and over which the skin may become tender. Herbetic eruptions correspond fairly with the areas of tenderness, but more often several areas are involved These areas do not as a rule overlap, and this is especially true of the head, less true of the neck. The accompanying table shows the points of maximum tenderness and pain in several areas. The head areas to which viscera refer pain (in association with referred pain in parts of the trunk) are briefly as follows: - Lung . fronto-nasal, mid-orbital, fronto-temporal and temporal Heart: mid-orbital, fronto-temporal and temporal Stomach, fronto-nasal, vertical, temporal, parietal Liver; frontonasal, vertical, occipital. Upper part of small intestine vertical and parietal Intestine also to occipital. Ovaries or testes. occipital.

Area	Maximum Point	Reference From
Fronto nasal	Over orbital ridge, 1 in. from middle line	Cornea and anterior chamber, upper nose, upper
Mid-orbital .	of eyebrow (2) Front of	Incisors Hypermetropia, hypermetropic astigmatism (accommo-
aı .	Hehind fronto-nasal and I inch above orbital ridge	l dation spasm) Tritis, glaucoma, thoracic
Temporal	. In temporal fossa, just above upper border of zygoina	Glaucoma, second upper bi- cuspid, upper gastric area of chest (vomiting)
Vertical .	Vertically above ear	Posterioi part of eye, increas- ed tension of middle ear,
Parietal .	Parietal eminence	hepatic and gastric dis- turbances Ear (with other areas), Stom- ach

1		
Occipital	Just above occipital protu- berance	Abdomen, back of tongue (rarely)
Maxillary	Under eve	Bicuspids and hard palate,
Mandibular .	In front of tragus	Last two upper molars
	(1) Behind and below angle	Ears, tonsils, tongue, teeth,
	of lower jaw (2) In external auditory meatus	
	In front of sterno-mastoid	Lower wisdom teeth, back of
	at level of pomum Adami In front of Stano masted	tongue Laryns (vocal cords and
scal	at level of cricoid	
	Between angle of nose and angle of mouth	Respiratory part of the nose, improvement and first bi-
Montil		Anterior put of tongue,
	of mouth	lower incrors, canine, and first bicust id
Sterno-mastoid	(1) Posterior edge of inscrtion of sterno-mastoid into skull	
	(2) Supraclavicular tosa	
Sterno-nuchal	Over the shoulder-joint	Thorncic and abdominal dis- turbances
		1

REFERENCE -" Brain," 1804

Synofsis — (Vol 1894, p 318) Peterson advocates a lunning water Cold Foot Bath every evening, accompanied by Rubbing and Chafing the feet, or a strong Fan Douche of Cold Water.

## HEART (Diseases of the).

Dr Haynes ' gives the following relations of the normal heart and lungs to the anterior chest wall

- (1,) Base of Heart A line crossing the sternum obliquely from the upper margin of the third right to the lower border of the second left costal cartilage, an inch and a half from the median line on each side
- (2,) Apex In the fifth space near the upper margin of the sixth costal cartilage, two inches and a half to the left of the median line
- (3,) Right Border: From the right end of the base curved slightly outward to reach a point an inch and three quarters from the right of the middle line over the fourth cartilage and ends at the centre of the fifth cartilage an inch from the midsternal line.
- (4,) Left Border From the left end of the base with a convexity outward to the apex. It reaches its greatest distance (three inches) from the sternal centre over the fourth space

- (5,) Lower Border A line curved downward at its beginning (at the lower extremity of the right border) and ending at the apex, and slightly convex upward in its centre as it crosses the middle of the ensiform.
- (6,) Heart Dulms. A quadrilateral area to the left of the median line and below the upper border of the fifth cartilage, nearly two inches in vertical and an inch and a half in extreme lateral measurements.
- (7,) Auricles. Right "Ear-shaped," facing to the left, covering the first inch of the third right space and cartilage with the portion of the sternum adjacent to the latter. Its long axis measures about two inches and is inclined from above downward and outward. Left. Is a small oval space half an inch by an inch, its centre an inch and a quarter to the left of the median line behind the second left space and third cartilage. Its long axis is directed from above downward and outward.
- (8,) Aurunlo-ventruular Groove Is indicated by a line from the right to the left heart border, beginning on a level with the upper margin of the fourth right and ending on a level with the lower edge of the third left cartilage. This line is convex upward and crosses the middle of the sternum on a level with the lower border of the third cartilages
- (9,) Aorta. A little more than an inch wide and about two inches long. Extends from the upper border of the third to behind the middle of the first carriages. At its beginning and ending its centre is behind the median line, but in the middle of its course the artery is convex toward the right.
- (10,) Pulmonary Artery Begins on a level with the lower border of the third and ends behind the middle of the second left cartilages Below its centre is half an inch and above three quarters of an inch to the left of the median line
- (11,) Coronary Arteries Both are nearly vertical; they incline slightly toward the median line at their lower ends Right, an inch from the mid-steinal line Extends from the upper boider of the fourth to the lower boider of the sixth cartilage Left, an inch and three eights from the middle line in expansion, and three quarters of an inch in contraction of the heart, extends from the middle of the third to the lower border of the sixth cartilage
- (12,) The Anterior Margins of the Lungs in Inspiration Right hies to the left of the median line, a quarter of an inch from and parallel with it from the upper margin of the second to that

of the sixth cartilage (sternal ends). The left is in contact with the right from the upper border of the second to the mid-point between the fourth cartilages, where it turns downward and outward along the upper margin of the fifth left cartilage. Length of contact, two inches and a half.

Tackson2 points out that errors in the diagnosis of cardiac diseases may arise as follows (1,) A murmur may be evanescent even in the presence of a well marked valvular lesion as well as in meie functional delangements, (2,) A mulmur may be audible to the ear when applied to the chest, but not through the stethoscope, and this characteristic applies most frequently to the bruit of acitic reguigitation, (3,) Murmurs do not always confine themselves to their regular areas, e.g., in aortic regulertant mumur may be heard at the aprix only, (4,) Estimating the size of the heart. Variations in the position of the apex beat are frequent under normal conditions, and on the other hand marked valvular disease may exist without enlargement of the cardiac area or sign of displacement, (5,) Some cases regarded as functional palpitation are undoubtedly due to adherent pencardium, (6,) The secondary congestions, e.g., gastic and hepatic, may overshadow the cardiac lesion, especially in cases of acute dilatation without endocarditis. In antic atheroma also the gastric symptoms may entirely divert attention from the graver lesion A small aneurism of the first part of the aortic, producing cough and asthma by pressure on a bronchus, may easily lead to diagnosis of lung disease as the primary factor; (7.) The presence of acute lung or general diseases may mask so grave a lesion as malignant endocarditis, especially if the purpuric eruption and any murmur are absent.

Pulmonary Regurgitation —According to Gerhardt<sup>3</sup> the signs of the affection are as follows. The impulse is too powerful, and is perceived over too large an area, being especially marked to the right of the usual position of the impulse. The heart dulness is increased, this increase being caused by hypertrophy and dilatation of the right chambers of the heart. A diastolic murmur is heard, loudest over the origin of the pulmonary aftery, and conducted downwards to the apex, and is not conducted along the great afteries into the neck. The second sound is sometimes present, sometimes lost, frequently a systolic murmur co-existed, showing stenosis as well as regurgitation. In addition to these physical signs, Gerhardt noticed two others to which attention does not seem to have been called. In five cases he

noticed that over every part of the lungs, especially over those parts most remote from the heart he heard two dull sounds, something like murmurs. This he calls double sound in the branches of the pulmonary artery. A second sign, which may be called audible capillary pulse in the pulmonary circulation, is thus described in parts of the chest at some distance from the heart (e.g., at the outer border of the right shoulder blade), when the patient draws a long, deep breath, the vesicular respiratory murmur grows louder with each systole of the heart, and then becomes more feeble.

Peruarditis -In opposition to the almost universally accepted teaching that commencing pericaiditis is first manifested by an mercase (broadening) of the cardiac dulness at the base of the heart. Ebstein 4 finds that the first alteration occurs in the lower regions of the area of dulness. At first there is a stretching of the pericardium towards the left side, but this is seldom discoverable, partly on account of the occurrence simultaneously of left pleurisy, partly on account of the overlying of the cardiac apex by the lung, partly on account of the loud tympanitic note in the semilunal space. After a short time the pericardial sac will be distended towards the right side also, and this enlargement may be recognized clinically in nearly every case by the appearance of an absolute, or almost absolute, dulness in the fifth right intercostal space, in the region named by Ebstein the cardio-hepatic angle (Hersleberwinkel) The symptom is all the more demonstrable if it occurs under the observation of the physician, because the possibility of mistaking it for the other processes which bring about complete dulness in this region is entirely excluded Further, this absolute dulness in the cardio-hepatic angle is of importance for the differential diagnosis between pure hypertrophy of the heart and accumulation of the fluid in the pericardium, because, according to Ebstein, so far as has been hitherto ascertained, absolute heart dulness between the fifth and sixth ribs, even in extreme hypertrophy of the right heart, does not extend beyond the right sternal margin The cardio-hepatic angle marks also the spot at which during the retrogression of pericardial effusions, the dulness remains longest observable.

Cardiac Asthema.—Da Costa<sup>5</sup> applies this term to those cases in which there is habitual feeble action of the heart, and in which this constitutes the essential and only appreciable disorder. This heart-feebleness or heart exhaustion comes from two causes:

it is due either to nervous failure or to a weak heart muscle; in some instances to a combination of both.

The affection generally manifests itself in those whose nervous system has been strained by worry or by overwork. It shows itself frequently by a veritable and sudden cardiac collapse, though the causes that have led to this become apparent enough when enquired into, and there have been warning signs. The patient is obliged to stay in bed, all attempts at sitting up produce a sense of swooning and a vanishing pulse, or there is actual fainting from time to time. The heart's action is feeble, the pulse very small and compressible, and generally increased in frequency, there is a sense of uncasiness in the cardiac region. but very raiely actual pain, the extremities and the nose and ears are cold, the general temperature is somewhat below the noim The capillary circulation is poor, the skin pale, occasionally injected or flushed; sweating is the exception. The breathing is conspicuously unaltered, although there may be a sense of op-"I am out of heart rather than out of breath," was the expression of a very observant patient, who added "The heart has taken possession of the whole chest." The reflexes are unimpaired or sluggish. The appetite is poor, though there are no marked gastric symptoms; the bowels are constipated. Insomnia may be complained of; apprehension and low spirits are very common. From this state of depression and disturbed circulation the patient rallies but slowly. It is one or two months before he can sit up without inclination to faintness, and months more before he recovers. The course of the disease is as markedly chronic as the onset has been markedly rapid.

The heart's action is mostly accelerated, but not irregular. It is very variable, always uses markedly after meals, and is influenced by the slightest exertion. Slow pulses (pulses under 60) are, quite the exception. The pulse is feeble, very compressible, at times almost imperceptible. The heart's action is influenced by position, but not to the extent to which the irritable heart is influenced.

The physical signs of the heart disorder are very significant. There is no increased percussion dulness, the impulse is feeble, difficult to find, not diffuse. The first sound is short, lacking in volume, and may be obscure or short and valvular, the second is not accentuated. Excluding anomic murmurs, which are very infriequent, since anomia does not play an important part in the affection, there may be, though this is also rare, functional apex

murmurs of dynamic origin, and these murmurs may be brought out, as shown by Dr John K Mitchell, ("Transactions of the College of Physicians of Philadelphia," 1892), by suddenly closing the hand tightly. A sensitiveness to touch in the cardiac region is at times noticed.

That the nervous system is very decidedly affected is evident. Indeed, most cases happen in those who from overwork or worry have had their nervous tone markedly lowered. The breakdown as primarily in the nervous system and not in the heart. The cardiac malady is throughout neurosal rather than muscular. It is very difficult to say to what part of the nervous system influencing the heart the disorder should be ascribed. Granting that the central nervous system is affected, Da Costa is inclined to attribute the cardiac weakness more immediately to disturbances in the cardiac ganglia than in the centres in the medulla and to the disordered inhibitory influence of the vagus The changed respitation seems to be against the view of the centres in the medulla being decidedly affected, as the centres for the heart and the respiration are there so closely connected. The malady is not hysterical, as in the great majority of cases hysterical symptoms are conspicuously absent, but they may come on when the case is of long duration

The disease is one of all ages except childhood and very old age. The great majority of cases have been in men. It is always a long drawn out affection.

The diagnosis is not, as a rule, difficult. The evident nature of the causes that have given rise to the heart-wreck, its generally sudden onset, the unembarrassed breathing, the feebleness of the pulse and of the cardiac impulse, are full of significance. The physical signs as well as the state of the respiration and the clinical history separate the weak asthenic heart from the weak heart of organic type, such as the typical ones of this group—fatty degeneration and cardiac dilatation

From other members of the functional group, as from the irritable heart, it is also distinguished by the history, by the fact that in this malady the patient has had a heart-strain or a gastric or an intestinal affection, that he is able to be about, that the heart's action is generally much more rapid, much more influenced by change of posture, that the impulse is sharp, jerky, diffuse, the pulse quick, small, not so faint, the second cardiac sound sharp and distinct. The tobacco heart resembles the asthenic heart very closely

The most difficult point in diagnosis is to distinguish the weak

heart of nervous origin from those much larer cases of inherent muscular weakness in which, however, no obvious disease of the muscle exists It is very much rarer than the nervous form, and very much more persistent. The symptoms are the same as regards the feeble circulation, but there is this decided difference shortness of breath, especially on excition, is very common, and ædema of the ankles and insteps, passing though it be, is often met with. The physical signs in the heart do not differ, except that the first sign is more toneless, undefined, not so valvular: reduplication of either sound is more usual, and also functional dynamic apex muimuis Dilatation of the heart and mitral insufficiency may finally come on in these cases which may thus become markedly organic. In the asthenic nervous heart the prognosis is good (though there is some danger from heart failure). it thus contrasts most favourably with cases of cardiac muscular debility.

TREATMENT -For the cases of asthemic nervous heart, rest in bed is at first essential, and, when they are able to sit up, nothing does them so much good as graduated Shower-baths. Massage, too, may be employed, but many cannot at first bear it, and it comes in better at a later stage of the treatment. It is then, too, that Swedish Movements may be recommended, and carefully adjusted exercise, such as walking, or gentle horse-back exercise, or light gymnastics. These agents can be resorted to from the start, where the weak heart depends on a weak heart-muscle. From Swedish movements that are specially adapted to promote the flow of blood and to strengthen the heart, Da Costa has seen in this class of cases great good. The action of the heart has become distinctly stronger and more regular, and in young persons he believes a permanent curative result may be accomplished. The food should always be as nutritious as possible, taken as frequently and in amount as large as the digestion will readily tolerate, and stimulants often have to be resorted to. It is astonishing in what quantities they are borne, and temporarily even required, in the nervous heart, though, for fear of forming a habit, it is best to withdraw them as soon as the circulation strengthens. The tendency to constipation demands attention, and is to be remedied by means of diet and of light laxatives

Among drugs **Strychnine** stands pre-eminent It is suitable to both the forms of weak heart under discussion. The dose need not be large—rarely exceeding  $\frac{1}{30}$  of a grain three times daily—but it must be continuous. Iron is not called for except where

a complication with anaemia exists, or later in the case as a general tonic, and its tendency to constipate makes it often a doubtful remedy. Arsenic, for the nervous asthenic heart, comes next to strychnine in value. Its action cannot be explained by its removing anaemia, for it proves to be valuable where the blood-count shows that anaemia does not exist.

Of so-called heart tonics Digitalis is the best, but it is not the certain remedy we might suppose. It is on the whole best adapted to the cases of muscle weakness. Where we give it in large doses the patient should be kept in bed. In a number of instances it does not suit at all Strophanthus is generally said to be inferior to digitalis. Da Costa has used most of the other remedies of this class in different cases. Adonidin and Chloride of Barium have done him at times good service, cactus and convallaria have been disappointing. The latter he has ceased to use. Caffeine and Cocaine are both valuable, but their action cannot be kept up, from cocaine one would run the risk of establishing the cocaine habit It is, however, very serviceable during urgent symptoms of failing heart. Nitro-glycerine is not of much avail, except there be cardiac pain, unless combined with remedies like digitalis. which act more distinctly on the force of the heart Bromides, Valerian, and Opium ought to be left to meet special indications of nervous disturbance

Glinski' summarises his experience of Apocynum Cannabinum in the following conclusions—(1). The action of the root of apocynum cannabinum is similar to that of digitalis, without being cumulative, (2) In cases of dilatation the fluid extract rapidly diminishes the area of dulness; (3). It increases the daily amount of urine, stops the palpitation, and promotes the absorption of transudations, (4). With the exception of increased pulsation of the arteries of the head, it has no bad secondary effects. It was used either in the form of a decoction (5) to 5vii), 3 to 4 table-poonfuls a day, or functure (1 in 10), 5 to 10m, three to four times daily, or fluid extracts in doses of 10m to half a teaspoonful three times daily

In an able paper on the treatment of mitral stenosis Dr James Bairstrongly advocates the use of **Atropine** combined with **Nitro-glycerine**, as follows.—

M Ft. mist Sig 3j to be taken three or four times a day

Babcock<sup>8</sup> gives an account of the Schott Method employed at Bad Nauheim during the past twenty years in the treatment of all forms

of chronic heart disease, except aneurism of the heart, or large vessels, and advanced general arteriosclerosis. Valvular disease forms no contra-indication to its employment, for most striking restoration of compensation has been obtained in cases of the utmost gravity that had resisted all other forms of treatment.

The method consists in the administration of warm baths, either simple saline, or saline with a large percentage of carbonic acid, at a temperature varying from 80° to 92° F. The duration of the bath is from five to twenty-five minutes, being short at first and gradually lengthened. The simple saline baths at the higher temperature are first employed, and they are subsequently gradually and cautiously strengthened by the addition of a strong solution of the salts, and the temperature is gradually reduced. The baths are taken once every second day or daily for three days in succession, with one day's interval following. After the bath the patient remains undressed and lies down, warmly covered, for at least an hour. The treatment extends over a period of from five to seven weeks.

Another factor in the method is the employment of extremely simple but systematic exercises of the trunk and limbs. A fundamental principle of the gymnastics is that the patient's movements are restricted by another person. The exercises consist of flexion, extension, and rotation movements. A movement should never be immediately repeated, but followed by a short period of repose. It should not be made so rapidly or against such a degree of resistance as to cause acceleration of the pulse or respiration. All movements must be carried out slowly and steadily, without jerkiness. In some cases, the patient resists his own movements by calling into play antagonistic muscles.

During the baths there is a slowing of the pulse with increased volume and strength, and irregularity, if any exist, is lessened or disappears. The cardiac contractions are increased in vigour and the cavities better emptied, thus permitting of a diminution in the size of a dilated heart. This marked and beneficial effect on the action of the heart does not disappear at once, but persists for a considerable time subsequent to the baths. If properly administered, the baths occasion a gradual and perceptible amelioration of the symptoms. During the gymnastics the rate of the pulse falls and the volume and strength are increased.

While Ocitel's method is limited to cases of heart disease in which compensation has not been lost, Schott's method is applicable to a greater variety of cases, and, as the treatment can be carried out in this country by artificially prepared baths and the gymnastics, it seems

that by careful selection patients subjected to this treatment may be greatly benefited.

REFERENCIS. Thew York Med Journ," Sept 12, 1893; "Ibid, April 28, 1894, "Charite Annalen," xvii, p 255; "Practitioner," Feb., 1894, 5 Da Costa, "Amer Journ Med Sciences", "Vratch," Nos 6 and 7, 1894; "Liverpool Med Chii Journ," January, 1894; "New York Med. Journ," Nov. 18, 1893

Synopsis -- (Vol 1894, p 326) Theobromine as diuretic, gr 30 daily (the pure drug, not diuretin). Diuretin 45 to 90 grs daily Morphine in some cases relieves the dyspinea and nervous symptoms. Caffeine may be used with Morphine or to replace it. Injection of Morphine and Ether for severe cardiac dyspinea, the former in 2½ to ½ gr. doses. Piscidia Erythrina, 20 drops morning and evening for painful sensations of chronic myocarditis or endarteritis. Coronilla Tincture, it to 5, giving 58s-1 daily used for tachycardia, dyspepsia, vertigo and other reflex disturbances.

### HEAT STROKE.

Synopsis — (Vol. 1894, p. 329) Rubefacients, e.g., rubbing skin with large gritty sponges, Atropine,  $v_0$  to  $v_0$  gr, the latter in two equal doses with brief interval Sp. Ammon Aromat, 35s to 1 in milk Morphine, gr 1, may be used with the atropine or the ammonia Strychnine, Ice for the nausea. Amyl Nitrite (m 3), inhaled, gave good results in one case Cold Spray, Cold Air Blast.

## HERNIA.

A. W Mayo Robson, F.R C S

In the radical cure of inguinal herma we have found that a combination of the various modifications of the original operation of Mitchell Banks has given the most satisfactory results, both immediate and remote. After separating the sac from its environment we lay open the inguinal canal in its entire length, so as to thoroughly expose the neck,

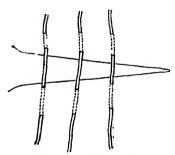


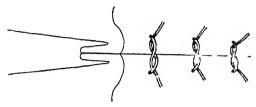
Fig 17.—Suture applied.

which is then isolated, ligatured as high as possible, and cut through just below the ligature, the ends of which are left long; these ends are then threaded on curved needles, which being guided by the index finger are passed through the internal abdominal ring and made to pierce the fascial, muscular and aponeurotic layers, about half-an-inch or more above the upper border of the ring. The two threads being passed about a quarter of an inch from one another

are drawn tight, tied, and cut off short on the superficial surface of the aponeurosis of the external oblique, thus drawing the cut neck of the

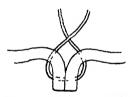
sac away from the opening through which it previously passed the male, the vas deferens with its artery and a single vein. "all redundant veins having been removed," is then brought through the outer part of the inguinal canal, as in Halstead's operation, and made to run superficially towards the scrotum, the canal being occluded by buried sutures, and when the aponeurotic layer is redundant, the

method described by Giaff 1 (Figs 17, 18, and 19) is adopted, as it results in the apposition of bload fibrous suifaces. which stiengthen the line of union.



The skin and sub-Fig. 13 -Suture tied

cutaneous tissues are then brought together by silk-worm gut sutures, and unless the scrotum has been much interfered with, no drainage tube is employed. As a rule healing occurs by first intention, and the sutures are removed at the end of a week, but the patient is kept recumbent for three weeks, and wears a pad of wool held in position



by a spica bandage for about three weeks No truss is ordered The operation can be quickly performed, and the after results are most satisfactory

Wirt 2 recommends, after the radical cure has been performed on children, that the antiseptic diessing be covered by a plaster Fig 19—Apposition obtained of Paris case from the ankle to the umbilicus

Bruns3 describes an operation for the radical cure of umbilical hernia devised by Condamin as a modification and extension of Keen's method

A curved incision is commenced in the mid-line, just above the hernia, and carried along the base of the tumour on the right side as far as a corresponding point in the middle line below. This incision involves the whole thickness of the abdominal wall, including the On raising the inner edge of this wound the inner opening of the hernial sac is exposed. The neck of the sac is now incised, and a short transverse incision made from the middle of the outer edge of the long wound The contents of the sac can now be returned into the abdomen A curved incision similar to the first is now made, and the sac with its coverings and the soft parts round the hernial ring removed. The edges of the abdominal wound are now approximated by two lows of sutures, one including the peritoneum and deeper layers of the abdominal wall, the other and superficial row including the edges of the skin

The advantages channed for the operation are the greater ease of returning the contents of the sac, the greater certainty of securing a primary healing of the wound, and the diminishing the tendency to relapse.

Dr George M. Edebohls also describes an operation for radical cure of umbilical herma. Briefly, it consists in splitting back a flap on each side of the hermal opening and bringing the surfaces together by means of silkworm-gut suture, in such a manner that the surfaces are apposed without puckering them together as had previously been done. These sutures are buried and permanent. He reports four cases of the above operation, three of which were successful, one relapsing in twelve months

Herma in the Linea Alba —Lenhoff<sup>5</sup> describes a thill to be obtained in these epigastric heimae similar to the hydatid thrill, and draws attention to the fact that the symptoms of catarih of the stomach and gastric dilatation may be simulated

Elliot Smith reports the case of a detached and dead hydatid cyst found in the patent processus vaginalis of a man aged eighty-five. The cyst had apparently become detached from its original site, and had passed into the hermal sac. According to the author, only one other case in which a hydatid cyst formed the contents of a hermal sac has been recorded. He draws attention to the fact, that cases in which cysts he free in the peritoneal cavity are very uncommon. These cysts probably always develop in the subscious tissues of some abdominal viscus, or in the omentum, and later separate themselves from the surface of organ in which they were embedded, and becoming detached lie free in the peritonial cavity.

Ventral Herma following Laparotomy?—At a meeting of the Royal Academy of Medicine, in Ireland, Mr McArdle brought forward some cases to show that the middle stratum of the abdominal wall was the essential one to secure in completing operations for ventral herma, or after laparotomy. He enumerated the following as the usual causes of non-union in this layer. (1,) Failure to engage the different layers of this stratum sufficiently in the sutures, (2,) Interposition of confused peritoneum; (3,) Hæmatoma not becoming soundly organised, (4,) Suppuration from inherent or extrinsic causes.

We entirely agree with the author of the paper on the importance of securing apposition of the separate layers, especially the aponeu-

notic, and since we have used a continuous suture for the peritoneum and separate sutures for the aponeurosis, and for the superficial structures, we have not been troubled with subsequent ventral hernia after abdominal operations.

At a meeting of the Clinical Society, of London, Mr. Perker® related a case of strangulated femoral hernia, complicated by volvulus. The strangulated gut was gangrenous, and a false anus was established, but no facces escaped. Sixteen hours later laparotomy was done and a volvulus discovered and adjusted, immediately after which facces began to flow from the false anus. Unfortunately the patient died in about twelve hours, but the case is a most instructive one, and worth remembering in all cases where relief is not obtained after kelotomy.

Chaput, recommends that in cases of gangrenous herma, intestinal suture should be performed instead of making an artificial anus, although he acknowledges that an artificial anus should be formed when there is much collapse or apparent peritoritis.

In doubtful cases, when an entire loop of gut is involved, Richelot's operation of kelotomy without reduction should be adopted, and it the patient's state admits, reduction should be performed forty-eight hours afterwards. If there is a perforation this part should be buried by a double row of sero-serous sutures, and the intestine so placed that it can be observed for forty-eight hours

When the presence of gangrene is evident, and the lesion is small, it is enclosed in the intestine by a double row of sero-serous sutures, and, if long, it is enclosed by a fold of intestine held by sutures.

When it is wide but does not involve the whole circumference of the bowel, Chaput advises that a diamond-shaped piece, which includes the gangienous portion, should be cut cut, and the margins of the orifice so formed should be united by sutures. By this method, he maintains, a sufficient channel of communication between the two ends of the intestine is left.

Dr McCosh<sup>10</sup> in reporting three successful cases of gangrenous heinia subjected to circular enterorrhaphy says. "In iepoiting a case a few years ago, I collected one hundred and fifteen cases of immediate enterorrhaphy, and found the mortality to be about 50 per cent. In spite of this large death rate, my own preference in the majority of cases is for immediate suture, instead of the formation of a temporary artificial anus.

Mr W H. Pager in discussing the question of resection of the intestine for gangrenous heima says each case must be judged as it occurs, and that when neither local nor general conditions seem to

forbid it, primary resection should be done. Mr. Page recommends that this procedure be carried out at the site of the original wound, rather than by making a fresh incision in the middle line.

We have previously expressed our views on this subject, which are in accord with those of Mr. Page quoted above, and we think that the length of time involved in enterectomy in these cases is much exaggerated by many surgeons, and that therefore unless the patient is in a very unfavourable condition the gangienous parts should be excised and the bowel united in loco.

During a discussion on the treatment of strangulated hernia at a meeting of the Philadelphia Academy of Surgery, Dr John Ashhurst, Jun, 12 said that in the hands of an inexperienced practitioner, who sees but few cases of hernia, taxis is an unsafe procedure

Di John Deaner considers anastomosis operations to be of value in but few cases of strangulated herma. In gangrenous herma the condition of the patient does not warrant the procedure of anastomosis, and even under the most favourable circumstances the operation is anything but satisfactory.

Dr. J. M. Barton said, in cases of umbilical herma the strangulated bowel is invariably in the centre of a mass of omentum. The small knuckle of intestine is at the very base, and any pressure on the surface would be useless.

In two cases he had successfully released the strangulated bowel by grasping the abdomen above and below the herma, and lifting the abdominal walls—actually lifting the patient off the bed

Mr George When; is draws attention to the value of coughing on the part of the patient during the performance of taxis. He advises that, during the whole of the time that taxis is being employed, the patient should cough, only stopping for rest or on account of retching. In explanation, he says that the alternate contractions and relaxations of the boundaries of the ring are most favourable for the return of a heima if pressure be skilfully practised.

Raiford 4 recommends the cold douche and taxis in strangulated hernia, and claims that 90 per cent of cases so treated can be reduced in a few minutes and without the aid of anæsthesia

Demons and Binaud<sup>15</sup> report a case of omphalo-properitoneal hernia (hernie à double sac), it being, he says, the fourth on record. The patient, a woman aged sixty-two, presented herself at the hospital Saint-André, suffering from strangulated umbilical hernia.

Laparotomy was done, when the umbilical sac proper was found to contain a loop of strangulated gut and omentum, and communicating with this sac was a second, six centimètres long, lying below the umbili-

cal ring and situated between the peritoneum and the abdominal wall. This sac contained omentum. The two sacs were dissected out and the patient recovered.

Vesical Hermia—Dr. Einest Michels, 16 in a paper communicated by Mr R. W. Parkei to the Royal Medical and Chirurgical Society describes a case of extra-peritoneal vesical hernia; the contained viscus being mistaken for an empty hernial sac was ligatured at the neck and excised. Twenty-four hours after operation the patient complained of great hypogastric pain, and the urine contained a large admixture of blood.

The abdomen was opened and the extra-peritoneal bladder wound closed by a double row of sutures The patient recovered

In the discussion which followed Mr. Macready and Mr. Keetley each cited similar cases, in that the presence of the bladder was unsuspected, and although wounded during operation, recovery had followed.

Dr F A Pinnell<sup>17</sup> reports a case of bladder in an inguinal hernial sac, and that, when operating, the bladder was cut into under the impression that it was omentum

At a subsequent operation the protruding portion was sliced off, and the wound in the bladder sutured by Halstead's method, the patient recovering

In a recent treatise on heinia (a Treatise on Ruptures, by J F. C H Macready) we find the published cases of vesical hernia grouped as follows. Out of a total of thirty-six, twenty-six were scrotal, four labial, two femoral, one vaginal, one perineal, one ischiatic, and one ventral.

The irritation of the bladder caused by the nipping of the neck of the protrusion, the collection of urine in the sacrule outside, and the tendency to inflammation and calculous deposit, which decomposition of the products is very likely to produce, all complicate the case.

Mr Rose recommends reduction of the vesical protrusion without excision of any part, as excision is apt to be followed by giving way of the stitches, sloughing of the wound, and the formation of calculi with the sutures as their nuclei

REFERENCES.— \* "Ann of Surg," May, 1894; 2" Internat Med Mag," February, 1894; 3" Centralblatt f. Chir," No 1, 1894, 4" New York Med Journ," Jan. 13, 1894, 5" Berlin klin Woch," July 30, 1894; 6" Australian Med Gaz," July 15, 1894; 7" Lancet," Jan 27, 1894, 1bid, April 21, 1894, 9" Sem Méd," Maich 21, 1894, 10" Ann of Surg," June, 1894; 1" Lancet," Jan 13, 1894, 12" Ann of Surg," Aug, 1894, 13" Lancet," July 27, 1894; 14" Amer Med & Sung Bulletin 15" Aichives piovinciale de Chii.," Tome 11, No 12., 10" Lancet," April 28, 1894; 17" Ibid, May 5, 1894.

## HERPES.

Synopsis.— (Vol. 1894, p. 336.) Washing with 1% Carbolic Solution for herpes genitalium, and dusting with R Amylum Pulv, 100 parts, Tannin, 5 parts, Bismuth Salicylate, 1 part For herpes ophthalmicus cleanse with Boile Acid Solution, and dust with R Powdered Statch, Bismuth Subnit, 5a.5j. Iodoloi Mistol, gr. 7½, M Arsenic administered for a lengthened period.

## HICCOUGH.

Synctys, -(Vol. 1894, p. 336) Gastric Lavage proved effective after failure of cocame, pilocarpin, etc

# HYDROPHOBIA. Allan McLane Hamilton, M.D., New York

Differ in the condingly interesting report upon this disease, in which he give statistics in regard to eventy cight cases, is of the opinion that many of the so called cases are "uticity incredible and wholly spurious." He deplotes the popular agitation which has attended the establishment of so-called "Pasteur Institutes" which have undoubtedly led to the increase of hystero-epilepsy both in this country and France, and lays little reliance upon the statistics of the aident supporters of the founder of the inoculation cure and his followers. His own statistics in regard to incubation, disprove the theory so long held that bites nearer the centre of the nervous system are more dangerous or more likely to be followed by a brief period of incubation.

RIFIRENCE -" Med. News," June 16, 1894

#### HYPERIDROSIS.

T. Cohott Fox. M B

The subject of undue sweating of the fect is one that is continually being discussed in the Medical Journals, and the present year has not been without the usual contributions

The "Therapeutic Gazette" for March, 15, 1894, calls attention to the following points —

- (1,) Cleanliness of feet and their coverings are necessary. Soft woollen stockings are probably the best, and shoes of thin leather Rapid evaporation is desirable. (Thin's method for keeping the feet and sweat disinfected is given in most of the text books.)
- (2,) Hebra's' treatment with diachylon plaster dressings is well known, but often is slow or fails. Duffin's modification of strapping the feet with stout lead or soap plaster allows the patient to get about. This treatment illustrates the fact that diessings causing complete exfoliation of the cuticle are often useful.
- (3,) Application of chemically drying materials and anti-hydrotics, eg, Alcohol with Tannin or Naphthalin, or powders such as Salicyl-Tale or Salicyl-Tannin Starch, or Sulphur Powdered tartaric acid

is unsatisfactory The application of a solution of 5 to 10 per cent Chromic Acid, followed by an antiseptic powder, is of service, also Perchloride of Iron and Glycerine

(4,) Neebe's treatment by local baths of **Hydrochloric Acid**. (a,) When the feet are galled or very tender, especially in hot weather, he dusts, as a preliminary treatment, the stockings with **Salicyl Tale** or **Compound Tale Powder**. (b) Crude hydrochloric acid in sufficient quantity to just cover the soles and not to touch the slin beyond is then poured into a flat vessel of stone or glass or porcel in, large enough to receive the two feet. The heal is first soaked for me minutes, then the sole, and smally the feet are washed in soap and water. The bath is stopped if painful. Very tender areas are healed with omtiment. The bath is repeated twice weekly. This treatment is not nearly so formidable as it sounds, and is recommended on a fifteen years' experience. For nervous subjects 25 per cent. of water may be added to begin with

Protection of the face is needed from the mitating vapours.

Patients who object to this treatment may paint the soles and the skin between the toes every morning with a 10 per cent solution of **Nitrate of Silver**, until all the skin has extolated, and afterwards occasionally. He thinks this better than chromic and

The recommendations in the "Brutsh Medical Journal illustrate many of the principles just alluded to. Sympson for broundrosis recommends the socks or stockings to be dipped in a warm solution of Boro-Glycerine and dried before wearing, and another writer suggests 1 in 40 Carbolic Solution, and wearing them nearly day. This is a modification of Thin's treatment

Cyril W Thomas likes the Salicylic Acid preparation used in the German army, (acid salicyl 5j; Sevum preparation 5j). Hibernicus by using a foot bath of 1 in 8 carbolic acid set up inflammation and free desquamation, which brought about a cure. Medicus paints on 5j of glycer acid. carbolic to 5vij of glycer, acid. tannic. George Fisher rubs in Castor Oil each might. Vignol paints the feet every forty-eight hours with Perchloride of Iron mixed with one third of its weight of glycerine, and allows them to dry in the air, in the intervals the feet should be washed with vinegar and water night and morning and powdered with salicylated talc or starch and tannin. Naphthol Spirit Lotion and Naphthol-Starch Powder are recommended, and also for dusting into the socks and boots Potass Permanganate gis vit, Salicylate of Sodium gis vxx, Bismuth Subnitrate 3iss, Talc 3j.

Edgar Duke extracts the following from past issues of the "British Medical Journal" (a.) Wear low shoes, and dut the fect over two dail, with Iodol, (4.) Wash the feet at night with very hot water,

put on white cotton socks, and immerse the feet thus covered in cotton methylated point, and let them div in bed. In the evening wear socks kept constantly saturated with spirit. Stout canvas shoes are the coolest; ..., Wash with soap and water, div, and apply hight and morning a lotion composed of lead acetate, 5j, methylated spirit of wine, 5ij, distilled vinegar, 5i, water to 5xij. Obsiewski believes in eliministering 20 to 30 drops of Ext. Hydrastis Canadensis Fluidum at hight, or maggravated cases 25 to 30 drops thrice daily for several days.

The treatment of blisters and exconations of the feet is an allied subject. Hertz finds a 20 per cent, solution of **Ichthyol** the most effective, and the following is said to be used in the German army -

B Black Soap	52 parts		
Water		Oxide of Zinc	6 parts
Soft Parallin	15 parts	Essence of Lavender	q >

Synopsis — (Vol. 1804, p. 341). R. Washed Sulphur, 755. Powdered Arrowroot, 3tv., Salicylic Acid, gr. vij., M. Sig.—Dust over feet and between toes. Kaposi prefers. R. I. mely Pulverized Talc, 20 grms., Pulverized Submitrate of Bismuth, 25 grms., Pulverized Permanganate of Potassium, t. 50 grms. Pulverized Salicylate of Soda, 1 grm. Mix with great care.

#### HYPERTRICHOSIS.

Sine fish (Vol. 1804, p. 341) Electrolysis. Equal parts Yellow Sulphide of Aisenic and Quicklime made into a paste with hot water and allowed to div on the skin. Ethylate of Soda for moles

# HYSTERIA. 12 in Melans Hamilton, M.D., New York.

That senous varieties of hysteria may exist with certain structural changes and sometimes much general organic disorganization of the central nervous organis cannot be dented. Hut points out that muscular attrophy may not only be of muscular and spinal origin and appear as a maintestation of hemiplegia, posterior spinal sclerosis, didictes, etc., but that it may also represent a phase of hysteria. The pecularity of hysterical muscular atrophy is that it is usually limited to one half of the body, although it exceptionally involves a circunscribed nervous area, such, for instance, as that supplied by the distribution of the scratic or the radial. Morility diminishes in direct proportion with the atrophy of the muscle bundles. Sensibility varies in individual cases. Diagnosis is based upon the psychic attitude of the patient and the occurrence of hysterical or hystero-epileptic seizures.

The editor has seen repeated cases where atrophy and symptoms, which resembled spinal diseases with destruction of the anterior hours,

occurred in bedindden hysterical patients, and in one case his experiments agreed with that of Hill, who in a case of this kind found no lesion after death other than muscular wasting

Hysterical tremor is the subject of an interesting paper by Dr. Henry Lloyd, of Philadelphia. It may be partial, or general, limited to one aim, or of the hemiplegic or paraplegic type, or general, involving the trunk and neck muscles. It has been transferred by the use of magnets and suggestion, and is most criatic in its appearance and course, for the duration varies greatly, it appearing sometimes after an access of convulsions, and it may be temporary or continued. The author agrees with Gilles de la Touriette in placing it among the prominent stigmata of hysteria, because of its tendency to recurrence. It is at times very slight, but again it may be so violent as to interfere with walking, riding, or any voluntary action. Like the tremor of sclerosis it is increased by a voluntary motion, but differs from the latter in the nature of its rhythm.

According to Lloyd it always presents a definite type. Like other forms it increases when the individual is under observation, or during excitement.

Lloyd makes the distinction between the tremor of hysteria and that of insular sclerosis, from the fact that in the latter there is a certain amount of a jerky to-and-fro motion, and that in the more serious affection there is drawling, monotonous, or embarrassed speech. As a rule the patients are of the female sex. In every case, the exist ence of coincident symptoms should be taken into account.

Effortz presented to the New York Neurological Society the case of a woman, aged thirty-five, who for sixteen years had had contraction of the fingers and hand, of both upper extremities, and complete anæsthesia of the face and body. This patient was easily hypnotized. When cataleptic the contracted fingers, were readily relaxed on suggestion.

A feature of the hypnotic state was a double strabismus, which disappeared when she was aroused. The patient was also subject to hystero-epilepsy, and could auto-hypnotize herself. There was hysterical blindness of the left eye, while in the other the visual field was limited, and this was associated with deatness.

The editor has treated several such cases, hysterical contractions of several varieties disappeared during the hypnotic state, but even persistent treatment of this kind had no perminent good effects

REFERENCES—"The American Jouin of the Med. Sec," Sept. 1893, p 267, Meeting of May 1, 1894

IDIOCY.

G E Shuttleworth BA, MD

# NIW MEDICAL AND SURGICAL METHODS IN THE TRIMINENT OF MENTAL DIFFERS

## L - THYROID TRIAIMENT IN SPORADIC CRETINISM

the successful results obtained by thyroid treatment in cases of myso tema referred to in last years "Annual," p. 42), have led to its employment in sporadic cretinism, the symptoms of which, though dating from an early age, present a striking analogy to the former affection. The name of sporadic cretimism applied in 1871 by Dr Hilton Farge to that peculiar class of imbecile dwarfs characterized by absence or atrophy of the thyroid gland, this characteristic having been ascertained by Cuiling, in 1850), broad, flat-featured face, pouting hips, protruding tongue, loose, baggy skin, a curved spine, and protuberant abdomen (see portrait in "Medical Annual" for 1894, opposite p 374), with peculiar slowness both of physical and mental functions, is the equivalent of what Bourneville designates "Idiotie Myxædémateuse." The Special Committee of the Clinical Society, presided over by Dr. Ord, reported in 1888 that a general review of the symptoms and pathology leads to the belief that "the disease described under the name of myxædema, as observed in adults, is practically the same disease as sporadic cretinism when attecting children', and con equently it was but reasonable to suppose that the treatment found embacious in the one case would scoreed in the other

In an interesting article by Mr Cecil Beadles, in the "Journal of Mental Science (July and October, 1893) we find a tabulation of one hundred cases of mystedema and eleven of sporadic cretinism ticated by thyroid gland, in the three forms of transplantation, injection, and direct feeding. The earliest he records is a case under Di. John Lockhart Gibson, of Busbane, in which grafting of the thyroid of the lamb in the mainmary region of a cretin (July, 1891) was followed by steady improvement for the first six months, with subsequent relapse. In May, 1892, however, intraperitoneal grafting was effected with the result that "it cured the patient's myvædema and lessened his cretimism." At the Edinburgh Medical and Chiturgical Society, in February, 1893, Dr Affleck reported a case of sporadic cretinism greatly improved by thyroid grafting on three occasions by Mr Caird. In the "Lyon Medical" for August, 1892, the successful treatment by thyroid juice injection (followed by subsequent grafting) of a cretin, aged seven, was reported by Dr V. Robin At the discussion at the Edinburgh Medical and Chirurgical Society, in February,



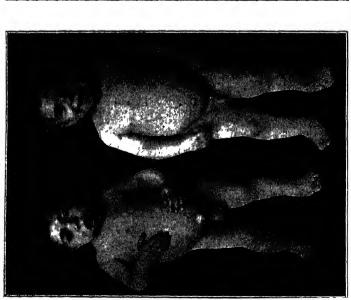


Fig A

Fig B

MEDICAL ANVITAL 180-

1893, Dr. John Thomson gave an interesting account of a mild case of cretinism in a girl of five treated by feeding with raw sheeps thyroid—at first 1, subsequently 1 gland, twice a week—and in an account published a year later, she is stated to be "improving in every way, not only in strength and appearance, but also in vivacity and activity, and apparently in mental capacity." In another more typical case under the same physician', portiaits of which we are by his courtesy permitted to reproduce (Plate XIV, A, B, C, D), a wonderful improvement followed the administration of sheep's thyroid ( gland twice a week), although the lad was over eighteen years of age when put under treatment in December, 1892. He was then but 33% inches in height, after twelve months' treatment he had grown to 37% inches, whilst the change of facial expression and of figure was most marked, denoting an acquired activity both of mind and body in marvellous contrast to his original state. The physical improvement is in all cases of young cietins evidenced by a striking increase in Thus, Dr. Byrom Bramwell mentioned at the Edinburgh Medical and Chiungical Society the case of a gul of eight and a half years who grew an inch during five weeks' thyroid feeding

An extreme case of sporadic cretimism -a gul over sixteen, whose stature was but 201 inches—was described by Dr. Byrom Bramwell. in the "British Medical Journal," for January 6th, 1894 with 5 drops of Brady and Maitin's Thyroid Extract, at first daily. subsequently every other day, she grew in six months 63 inches (equivalent to one-fifth of her height before treatment), the codematous infiltration of the tissues disappeared, the skin lost its harshness and became soft and smooth, and the facial expression changed from a striking similitude to a bull-dog, to the appearance of human intelligence this case it is noted that the breadth of the mouth duninished from 6 cm. to 45 cm, owing to reduction of size of protuberant lips, whilst the measurement of mouth from above downwards diminished from 5 to 3 cm. Other instances of the beneficial results of thyroid feeding have been described by Dr. Carmichaelt, of Edinburgh, by Dr. Vermehren,5 of Copenhagen, and M1 A G. Francis,6 of Hull, and the history of two brothers so treated, respectively by Dr. Railton and Dr. Telford Smith, were given in the "British Medical Journal," of June 2nd, 1894. Illustrations of these cases, Plate XII, Fig. A before, Fig. B after treatment, are (by the kind permission of these gentlemen) ieproduced, and the marked improvement in physique and in expression as the result of treatment is very apparent. The younger brother, a patient of the Royal Albert Asylum when thyroid feeding was commenced (at the suggestion of Dr. Shuttleworth) in March, 1893, being but nine years of age, improved more rapidly than the older brother, who was fourteen years of age when put under treatment. In the former case Di. Telford Smith used \( \) part of a lobe twice a week, in the latter Di Railton commenced with 36 grains of raw thyroid gland daily, and subsequently 2 to 5 of Burroughs and Wellcome's 5-grain tabloids. In each case notable physical and mental improvement is recorded, in the younger boy there was an increase in stature of 4 \( \) mehes in nine months; in the older, an increase of 4 inches in less than a year. In both cases a tendency to excessive loss of flesh was noticed in the early stages of treatment, also an undue rise of temperature, but these symptoms were checked by adjusting the dose.

Dr Telford Smith has more recently described, in a paper read at the British Medical Association's Annual Meeting, at Bristol, the sequel of this, besides three other cases of sporadic cretimism at the Royal Albert Asylum successfully treated by thyroid feeding. The improved appearance of these cases is well shown by the photograph which we are permitted to reproduce (Plate XIII); and a few remarks from Dr Telford Smith's summary? may be here quoted. "The chief effects of treatment (latterly 5-grain tabloids of thyroid gland daily at dinner time) may be summed up as follows.—

"Almost after the first dose the temperature (originally sub normal) began to use, gradually approaching the normal as treatment was continued.

"At about two or three weeks the skin began to desquamate, chiefly on the hands, feet, and face, and to assume a more normal tint and feel; it lost its dry, rough, waxy appearance, and perspiration became perceptible

"The invaced matous condition of the subcutaneous tissues began to subside and the outlines of the features became more defined and sharp. The abdomen became less protuberant, the hands and feet less thick and spade-like, and there was a general loss of weight, which if excessive called for adjustment of the dose of thyroid. A comparatively rapid increase in height commenced, and the previously delayed second dentition began to appear. The cutaneous sensibility became more near the normal, and the marked constipation gave place to a healthy regularity. In the two cases where an umbilical hernia was present it became almost imperceptible

"After about two or three weeks' treatment a gradual change became noticeable in their temperament and manners, the phlegmatic condition gave place to a spontaneous activity, their expression became more lively and intelligent. They became playful and even mischievous,

# PLATE XIII



Group of Cretins improved by Thyroid Treatment

and were constantly in motion and the sulkiness of disposition and disinclination to be amused, passed off

"When the treatment was suspended a slow deterioration set in, but the rate of this was much more gradual than that of their former improvement"

The two conditions, the temperature at might, together with the state of general nutrition, afford a useful guide as to when a sufficient dose of thyroid has been administered. If the temperature can be kept at about  $97^{\circ}$  to  $98^{\circ}$ , and at the same time characterior is not set up, the physiologically useful dose has been gauged

Can cretimism early diagnosed and treated be cradicated. We cannot definitely reply to this question, but we know that in cases of equal degree the younger we commence, the greater will be the improvement. With our present experience we may assume that permanent improvement depends upon permanence of thyroid treatment.

Dr Telford Smith, to whom we are indebted for the substance of the foregoing remarks, concludes his interesting paper by the statement that "the cretinoid form of imbeculity is certainly the one which offers the most hope of improvement from early and continuous medical treatment apart from special training." May we not, however, further say with Dr Crary, of New York, that "if we break away from the term Cretinism, with its vivid picture of the 'Pariah of Nature,' and look more closely for the symptoms of myxedema, we will find that many so-called idiots, imbeciles, cases of airested development, etc., among children, are in fact cases of functional macrivity of thyroid gland, and hence susceptible of treatment by thyroid extract, with improvement and perhaps even cure?" The successful treatment of myxedema and cretinism by administration of the thyroid gland is indeed a triumph of experimental observation, with which the names of Schiff, Victor Horsley, and Fuln are worthily associated

# II — CRANIFCIOMY IN MICROCEPHALUS AND OTHER FORMS OF IDIOCY.

Of operative methods employed to relieve idiocy, the records are not very encouraging. The progress of antiseptic surgery having led surgeons to explore the cranial cavity, numerous attempts have of late years been made to mitigate the unfortunate condition of idiots by operation. Craniectomy, or the removal of strips or segments of bone from the skull, has been extensively tried both in America and Europe, the earliest operation of this kind being (according to Bourneville) one by Di Fuller, of Montical, in 1878 an idiot of two years being craniectomised with favourable result. It was not,

however, till 1890 that the operation of cranicctomy was largely practised, in this year cases were reported by Keen, of Philadelphia, and Lannelongue, of Paris In 1891, Victor Horsley reported two cases to the Annual Meeting of the British Medical Association, and subsequently the operation has been adopted by many surgeons

On leviewing the early notices of successful cases (reported soon after the operation in the light of more recent experience, a sense of disappointment is felt at the comparatively trivial results gained by operative procedures ingeniously devised and skilfully carried out. Thus in 1891 M. Lannelorgue? reported twenty-five cases, with only one death, and said that the greater number of the survivois (microcephalic idiots) were "manifestly ameliorated". Yet after three years no more is heard of the progress of these cases, and the opinion of Dr. Bourneville, physician to the department for idiot children at the Bicêtie, given in his last published volume of "Recherches," is evidently not in favour of the operation. Dr. Bourneville indeed is very emphatic upon the superiority of the medico-educational treatment of these cases. Dr Keen, of Philadelphia, in an address to the American Association of Medical Officers of Institutions for the Feeble minded, in 1892 gave frankly the result of his experience. Of eleven cases operated on, seven survived, four died. Of the seven survivois, one had shown no improvement, in five there was a "moderate and slow" improvement, and in one the improvement was a little more Keen summed up his views as follows "In the case of a micros ephalic idiot, I shall certainly be willing to operate. I shall explain to the parents that about one in four dies-that if the child survives there may be no improvement whatever, but that probabilities are that there will be moderate improvement" declines to operate in children over seven years of age

Jacobi in his address to the Rome International Medical Congress, entitled, "Non Noccie," denounces craniectomy in no measured terms. He advances the opinion that the improvement that has followed the procedure is slight, and is not attributable to the operation; and that instead of an expansion there is often a diminution of the cranial cavity. He alludes to "such rash feats of indiscriminate surgery, if continued in the presence of fourteen deaths in thirty-three cases" as "stains on the hands and sins on the souls of the operators," not removable by "oceans of soap and water," or "by any disinfecting power of corrosive sublimate" 120

In this country Mr. Victor Horsley is perhaps the best known exponent of the operation. In July, 1891, he detailed (at the British Medical Association's Annual Meeting) two cases one fatal the other

successful, and urged that in view of the hopelessness of the condition and the chance of improvement, cramectomy should be "carried out in all cases" His favourable anticipations in the case of N.L., a microcephalic idiot then aged four, on whom he operated early in 1891, and again in 1893, are unfortunately not boine out by a recent report from Dr Telford Smith, in whose care the boy is now at the Royal Albert Asylum, Lancaster He states that the "only noticeable improvement is that the boy has almost given up the habit of slapping his own head, and that he is slightly less restless. There is no attempt at articulation, and since the last operation, his paients do not think there is any change in him." In another case of microcephaly (the child of a medical man) the father writes a year after the operation—"We see no improvement in him either mentally or physically."

To the present writer it appears that the all-important matter is the judicious choice of cases for operation. In a case of simple microcephalus, when the small skull is simply moulded to the brain which has been airested in its development at a stage corresponding to that of the fifth month of intra-uterine life, it would seem futile to expect that cerebial development would be fostered by cutting chinks in the skull, which after a short period would probably be filled up by bony matter, apt to encroach upon the cianial cavity. In the light of numerous autopsies, described by Bourneville and others, the theory of premature synostosis as a common cause of microcephalus must be given up, and operations based upon this theory abandoned. Yet there are exceptional cases which appear " " to be transitions to other complicated malformations of the brain, so that microcephaly might be associated with encephalocele, potencephaly, and hydrocephalus," and whenever signs of pressure present themselves operative interference is quite justifiable in the interest of the comfort of the patient.

Binnie, in a thoughtful paper<sup>12</sup> advocates craniectomy in "simple mal-development of brain, producing imbecility, as likely to remove a something which has hindered development or prevented the action of some parts of the brain already more or less developed"; and he instances the establishment of normal brain-pulsation (previously absent) by opening the skull—However, this may be, there is no doubt that beneficial results have been frequently obtained by cranial operations, in cases of traumatic, epileptic, and paralytic idiocy, the point being not to delay operating until serious atrophic changes have been set up

In this connexion reference may be made to the observations of Dr Claye Shaw, on "Biain Piessure and Trephining," published in the "Journal of Mental Science," for October last He advocates the

removal of a large piece of bone for the relief of cranial pressure in cases of general paralysis, and quotes two cases in which considerable relief of symptoms had resulted from the operation

# III ADENOIDS IN RELATION TO MENTAL DULNESS

The present writer has recently had occasion to note the frequent occurrence of post nasal adenoid vegetations in young people, not imbertle, but presenting symptoms of mental dulness. The subject has of course been referred to by thinologists and laryngologists, notably by Guve, of Amsterdam, and in this country by Workes, Hill, Watson Williams, Machaughton Jones, and Scanes Spicer, but its importance has perhaps scarcely been appreciated by those charged with the training of "backward" children. It is remarkable how these obstructions to nasal breathing produce an appearance of stupidity not indeed dependent on defective brain power but promptly disappearing on the removal of the adenoids. In a case under the writer's care, the immediate cessation of night-teriors and marked improvement in speech were amongst the beneficial effects of the operation.

REFERENCES.—"Edin Hospital Reports," vol 11, 1894, 2" Edin Med. Journ," May, 1893, and Feb 1894, 3 Ibid, May, 1893, 4" Lancet," March 18, 1893, 5" Bitt. Med Journ," (Epitome), April 15, 1893, 3 Ibid, April 8, 1893, "Journ of Mental Science," Jan, 1894; 4" American Journ of Med Sciences," May, 1894, 9" Congrès Français de Chiungie, Mai 31, 1891, p. 73. ""New York Med Record," May 19, 1894, "" Journ of Anat and Phys," July, 1894, ""Annals of Surgery, April, 1894

### IMPETIGO.

70 TO ..... A .... I

T Colott For, MB

Dilute Ammoniated Mercury is now a time-honoured remedy for 'mpetigo in this country, but it is interesting to note some French formulae —

om a last Transland

Ŋ.	Boric Acid	gr, xlv   Vase'ine	<b>ජි</b> ා
R	Salicylic Acid Oxide of Zinc	gr vij   Boric Acid 555   Vase <sup>1</sup> ine	Jss Jj
R	Plaster of Vigo	Vaseline \( \bar{a}\)\( (Besnier )	equal parts
Ŗ	Crystal Acet of Lead Salicylic Acid	gr iij   Oxide of Zinc gr. ij   Vaseline and Lard (Dubreuihl.)	gr lvv āā <b>J</b> ss
Ŗ.	Oil of Cade Yellow Precipitate	ml   gr x   Simple Cerate (Vidal)	<b>5</b> j

### INFLUENZA.

Synofsis — (Vol 1894, p 343) Salipyrine, gr 15 to 30, regarded by Mosenzeil as specific

INSANITY.

James Shaw, MD

### I -ACUTE MANIA.

Diagnosis and Treatment—The forms from which it is sometimes difficult and always (on account of the difference in prognosis and treatment) important to distinguish acute mania, are acute delirium, agitated melancholia, maniacal phase of circular insanity, periodical mania, exalted paranoia, exalted general paralysis with initial or cpisodial excitement

In acute delirium there is always some pyrevia, in acute mania rarely and then only in cases approximating acute delirium in other ways, and only safely treated on the same lines. In acute delirium there is blurring of consciousness amounting in most cases to complete loss, whereas the acute maniac is, if anything, too wide awake. The subject of acute delirium seldom reacts either facially or verbally to external stimuli, the acute maniac nearly always does. The physiognomy of the former denotes diminution, that of the latter augmentation of force. Defective speech and tremor, constant in acute delirium, are rare in acute mania.

In agreed melancholia the attitudinal, facial, and verbal expression is unintermittently one of grief, whilst in acute mania weeping and other signs of depressive emotion are transitory, changing suddenly to those of exaltation or anger. The abnormal acuteness of the senses, especially of that of hearing, nearly always present in the early stages of acute mania, is absent in agitated melancholia.

In folia circulaire there is the history of a prolonged melancholy phase immediately, or almost immediately, prior to the onset of maniacal cyaltation. The depression which sometimes precedes acute mania is mild and of short duration. Failing a history there are appreciable differences in the actual symptoms. In the maniacal phase of folia circulaire, the patient, whilst quite as loquacious and active as the acute maniac, is more coherent, frivolous, jocular, and mischievous. Unlike acute mania illusions are more frequent than hallucinations, and delusions are absent or rare

The attacks of *periodical mania* are often preceded by severe headache and sometimes by febrile symptoms. There is the history of previous attacks and generally of neurotic or insane heredity. The patient, though very loquacious and active, talks more coherently, acts more consistently, has more illusions and fewer hallucinations, is much less often the subject of delusions, and is much more frequently

the victum of moral or affective perversions and morbid impulses than the acute manuac properly so-called

It is a common occurrence to be told by a patient's friends that he is suffering from "religious mania," or "mania for riches", when in reality the case is one of acute mania with some varying delusions relating to religious matters, or to the possession of wealth, title, or power, and not at all one of exalted paranoia. In the latter the delusions as to religion (being the Messiah, having missions, etc.), wealth, rank, etc., are constant, unvarying, fixed, and systematised, being defended with arguments more or less, sometimes very, plausible, any excitement there is arises from the delusions and is episodial or consequent on opposition or undue encouragement. Paranoia, except perhaps at the climacteric, is a weed of very slow growth, whereas acute mania qua acute mania is, as a rule, fungus-like in the rapidity of its developement.

The last comparison applies with even more force to general paralysis and acute mania. Nevertheless, as there are some cases of the latter with exalted delusions and tremor and a few cases of the former with a maniacal or pseudo-maniacal onset of the mental symptoms, the diagnosis cannot always be made off-hand. Taking the generality of cases, however, there is, prior to the development of decided mental symptoms in general paralysis, a history (not met with in acute mania) extending over months of even years, of tremor, facial alteration, defective speech, muscular weakness and inco-ordination, and inability to perform fine, manual customary operations

Puer per al manua and acute hysterical, pubescent, and masturbational insanity allow themselves to be diagnosed from typical acute manua by the history and actual physical condition of the patient, the age, and, in the first, dislike of husband and child with rather more eroticism than is usual in acute mania, in the third and fourth by dislike of the opposite sex, of parents, brothers, or sisters; in the third also the maniacal excitement is a mere episode of comparatively short duration, and in the fourth it is secondary to solitary hypochondriacal brooding, and is often marked by the presence of false taste and smell perceptions.

TREATMENT.—The treatment of acute mania can, in the great majority of cases, only be satisfactorily carried out in an asylum. It is impossible in a large town, and only exceptionally possible even in the country. At all events the patients are so headstrong and intractable, as a rule, that it is hardly possible to manage them except under certificates. In cases of undoubted acute mania, with good bodily health, hypodermic injections of Hyoscyamine or Hyoscine will be

found very useful in procuring quietude pending removal, or to render the latter process more easy of accomplishment. Three or four of the one eightieth (1 80) of a grain hyoscyamine tabloids answer admuably in many cases, though more may be required. Initial daily doses of hyoscyamine of a thirtieth (1/30) of a grain for women, or a twentieth 1 70; for men, have never done anything but good in my experience. Asylum patients under my care have had as much as a fifth it 5 hypodermically without any ill effects, after having been tried with smaller doses. Should a mere calmative be required however, a 180 of a grain tabloid may be given twice a day Hyoscine being much more powerful a 1,150 of a grain tabloid would be the hypodermic dose for an untried patient. Solutions both of hyoscyamine and hyoscine keep badly To procure sleep in a patient with healthy thoracic viscera Chloral Hydrate in 20 to 40-grain doses will be found more certain than the newer hypnotics. These measures, if not persisted in for more than a few days, do not prejudice the patient's chances of recovery. But if there is a tendency to acute delinium they should be avoided and reliance placed on the warm wet pack, a copious fluid diet, meat juice, meat soups with onions, warm spirit and water at bedtime, forcible feeding being resorted to if insufficient aliment is taken Cannabis Indica (tincture) in \ \ \diachin to 1-drachm doses two or three times a day is sometimes useful in acute mania Pilocarpine (hydro-chlorate or nitrate) in small doses given hypodermically has proved very beneficial in my hands and those of others in cases tending towards acute hysterical insanity bromides, even the ammonium salt, as they have a tendency to reduce physical strength in large doses, and are of little use in small ones. are as a rule better avoided. Should private house treatment be decided upon it will be found that tonics, such as Quinine and Iron, give the best results. Strychnine increases excitement without offering sufficiently compensatory advantages. One, two, or three 2-grain Gascara Tabloids may be given every night where there is constination The diet should be copious, nutritious, easily assimilated, and require little or no mastication, milk and eggs constituting the sheet anchor

# II.—CLIMACTERIC INSANITY.

Diagnosis and Treatment.— It is distinguished from other depressive insanities by the previous history of flushings, heats, perspirations, formication, vague pains, headaches, feelings of fulness and swimming of head, paræsthesiæ, gastro-intestinal disturbances, irregular of deficient menstruation dysmcnorihæa or menorrhagia, facial mud diness, pigmentation and histories. The emotional depression is

much less intense than in typical melin holia, and the suicidal attempts are silly, half-hearted, and undecided. Severe insomina is a characteristic feature, and morbid apprehensiveness is frequently present. Chinacteric insanity is observed occasionally in men, but most of the cases occur in women in their fifth decade. Married women who have had few or no children, or at all events no children for many years before the climacteric appear to be especially vulnerable. Sterility, absolute or relative, has been a feature in the history of nine tenths of the cases that have come under my own observation.

TRIMINI These cases are capable of treatment at the seaside or in a bracing rural locality, and are much benefited by an open-air life, care being taken to avoid over exertion. It should not be forgotten, however, that the half-hearted suicidal attempts might by accident prove successful. This being kept in view it is always worth while to endeavour, when feasible, to spare the patient the depressing effects and the stigma of asylum residence. Institutions similar to the "convalescent homes" for other diseases are badly wanted for patients of the poorer class in the neurotic and incipient stages, or suffering from mild uncertifiable climacteric psychosis. The treatment of certifiable cases in such institutions would not at present, it is much to be regretted, be legal.

Various drugs are useful according to the concomitant symptoms, but the general treatment should be tonic and supporting, embracing Iron and Quinine, Fellows Syrup, and Arsenic, Bismuth (especially las bismuthi) and Calumba, Rhubarb and Gentian, Cod-liver Oil Against the insonn a Sulphonal in 20 to 40-grain closes acts well in most cases and safely. Its action on these patients is enhanced by the exhibition at the same time of a few grains of Gray Powder. Bromide of Ammonium in small doses, 10 or 15 grains three times a day, is useful during the tonic treatment, diminishing apprehensiveness and mutability. To cure the constipation so often present i, 2, or 3, 2-grain Cascara Tabloids should be given every night. If, as sometimes happens in the early stages, there are severe dysmenorthical pains, the liquid extract of Salix Nigra in I drachm doses every six hours gives more relief than anything except hypodermic morphine, and has at the same time a general sexual sedative action, similar to, but weaker than, that of the bromides ing for drink should be combated, and alcoholic stimulants must not on any account be prescribed in climacteric insanity Gentian, Nux Yomica, and Capsicum in combination best and most safely counteract the drink clave when it is already established, and also help to prevent its inception

## III -- PARANOIA.

Diagnosis and Treatment - Ambitious paranoia is distinguished from acute mania by the delusions in the former being fixed and systematised, warrantable interences from false premises, by the emotional evaluation being less, and by the absence of incoherence of thought and language, and of suddenly changing mood. From general paralysis it is diagnosed by the absence of palpable mental weakness and facility, by the tremor, if there is any, being emotional, not constant, or attending all muscular action, and never fibrillary as in general paralysis, and by the exalted delusions in the last mentioned disease being unsystematised, very variable, and accompanied by ludicious incongruities. In mania with prominent delusions these are not systematised as in paranoia, and the emotional excitement is more In chronic mania with marked delusions there is palpable mental weakness and a history of a preceding acute maniacal attack, whereas paranoia is a primary disease, and the memory and rower of calculation are good, often singularly so

Erotic paranola has to be diagnosed from mania, acute, chronic, or periodical, with unusually strong crotic tendency, as well as from hymphomania and satyriasis. The crotic paranolae, generally a teniale, is free from maniacal excitement, and, unlike the hymphomaniac her love is more or less platonic and fixed on one person to whom, she miepressibly pays court for the time being, regardless of his view on the matter or of his condition as to marriage

For the differentiation of expansive religious paranoia and acute mania with religious delusions, see Acute Mania p. 332. Enough has been said as to the distinction between paranoia and chronic mania with delusions.

As these expansive forms of paranoia have to be distinguished from mania, and occasionally from general paralysis, so the depressive paranoias, persecutional, depressive religious, and jealous have to be differentiated from melancholia and also from some cases of general paralysis. A good key to the diagnosis from melancholia is the fact that paranoiaes blame others for causing their troubles and wornes, melancholiaes accuse themselves.

In distinguishing between depressive general paralysis and depressive paranoia the somatic symptoms (tremor, inco-ordination, paresis, speech troubles, pupillary inequality, facial bluring, etc.) of the former, and the neurotic heredity and somatic stigmata (cranio-facial asymmetry, palpebral inequality, masal deflection or depression, dental prominence or irregularity, inferior maxillary under or over development, auricular malformations etc.) of the latter should be borne in mind.

Certain cases of paranoia occurring in early life and heralded even in infancy or childhood by extreme selfishness, egotism, unsociability, sensitiveness, bad temper, and obstinacy, can be diagnosed in adult life from congenital imbecility with exalted delusions by the mental weakness in the latter and the want of systematisation of the delusions which have often been communicated or acquired from paranoiacs

TREADULATE To combat the disease with even a fair hope of success it should be attacked early. Any known exciting cause should be removed and the patient taken away from nintating surroundings the latter measure is important as a prophylactic of actual insanity in the quasi-congenital cases. As paranolaes are keenly alive to all that transpires around them, are very sensitive as a general thing, and have good memories residence in an asymmisnot always advisable and may, in some cases even prejudice the chances of recovery. However, the poor have seldom, at present, any other method of removing these patients from unitating surroundings, or to a healthier moral and physical atmosphere, homicidal and suicidal patients of all classes are safer there and cases have occurred, though rarely, in which the patients have been cured of their delusions by comparing them with those of the lunatics about them, or have been partly convinced of their delusive nature by the knowledge of the position into which they have led them, feither, patients occasionally seek the shelter offered by an a lyuni from their tormentors, real and fancied. Institutions on the semi charitable plan at the seaside or in bracing country districts to which paranolacs could be sent early, before they are certifiable, would be the means of preventing many drifting into incurable insanity

Tonic treatment is the best with, in the elotic and expansive religious cases, Ammonium Bromide in ½ drachin or liquid extract of Salix Nigra in a drachin doses. For the auditory hallucinations so constant in the persecutional and suspicious cases, the hypodermic injection of small doses of Morphine of the application of a weak Galvanic Current to the head may be tried. For the visual hallucinations, met with most frequently in the religious cases, small doses of Cannabis Indica are sometimes useful. Cold shower of plunge baths and sea bathing are very beneficial to the general mental state, if not contra-indicated by physical of other conditions. For the feeding may be necessary. For a few days this may be carried out twice a day by means of a short soft subber tube passed through one of the nostrils and along the floor of the nasal cavity to the pharyna, the fluid food being poured into a funnel littled to the outer and of the tube. Afterwards, if the patient continues to refuse

food and has learnt to eject the fluid, a soft rubber open ended stomach tube, either nasal or oral, must be used, and to avoid "mechanical restraint" the assistance of from three to six persons will be required unless in very exceptional cases. Patients should be fed at least twice a day and medicines may be given with the fluid. When food is taken voluntarily and drugs are refused it is not safe to introduce the latter surreptitiously into the former, as the patient may recognize them by their taste, smell, or effects, have his suspicions of poisoning strengthened, and refuse to take anything. Hypodermic medication may be resorted to in such circumstances when the administration of drugs is considered advisable. Aloin, given hypodermically in 1, 2, or 3-grain doses, acts satisfactorily where there is, as frequently happens in such cases, obstinate constipation

Synopsis — (Vol. 1894, p. 374) Duboisine, neutral sulphate, ! to 2 milligramme doses. Chlor-hydrate of Hyoscine, dose ‡ to 1 milligramme. Klippel recommends Naphthol, Alkalies, Purgatives and Milk Diet for cases of auto-intoxication.

### INSOMNIA.

Syrofsis — (Vol 1894, p 376) Electric Vibration Suckling prefers Bromide and Chloral generally, the latter is dangerous if heart is weak. They may be combined with Hyoscyamine and Indian Hemp Sulphonal in warm milk every other night is useful in mental cases. Chloralamide or Morphine in small doses is useful if heart is weak Forinsomnia of children Simon injects into rectum R Chloral, gr. ij, Tincture of Musk, gtt. xx, Tincture of Valerian, gtt. xx, Distilled Water, 3j. This may be repeated in two or three hours

# INTESTINAL SURGERY A W Mayo Robson, F.R C S.

Perhaps the greatest of the recent triumphs in abdominal surgery come under operations undertaken on the gastro-intestinal canal Although some operators aim at accomplishing short circuiting, enterectomy, and such operations without any appliance, the not unsuccessful competition among those who do the largest amount of intestinal surgery, to introduce some apparatus which will save time, the greatest of all factors next to asepticity, proves that as yet the method by simple, unaided suture is neither the quickest nor best

An extended experience with the decalcified bone bobbin leads me to advocate it more strongly than ever, it being simple in principle, easy of employment, and most efficient in practice, as proved by numerous cases in my own hands as well as in the practice of other surgeons. It was fully described and illustrated in last year's "Annual," but since then I have successfully excised and sutured, with the aid of the bobbin, ascending colon, descending colon, and small intestine, and have used it for gastro-enterostomy and for enteroplasty.

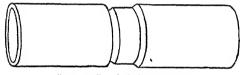
The mucous membrane being rendered continuous through the new

channel effectually guards against contraction, and the bobbin being made of decalcified bone, dissolves and is never seen again

MEDICAL ANNUAL

R. Baracz<sup>1</sup> suggests the use of plates of raw tunip as a substitute for decalcified bone plates in entero-anastomosis. He performed five gastro entero-stomies on dogs, using tunip as the coapting agent, with four recoveries, and three resections of the intestine with entero-anastomosis, with two recoveries. The former fatality was from peritoritis due to soiling of peritoricum with faces at the operation, and the latter from intestinal occlusion consequent on the anastomosis being made too far from the sutured end

Two successful cases are reported of Paul's incthod of enterorthaphy in which the distal extremity was invarinated into the proximal end of the gut, thus proving that it is a deconnectionate against the facal current, and doing away with one of the main objections to the method



My 20 -- Decalafied home tube.

M1 Cozens Bailey 3 describes a modification of the operation of cucular enterorihaphy by the insertion of a decalcified bone tube in the lumen of the gut (Fig.

20). The tube should be about 2 inches long and with a diameter varying from  $\frac{1}{2}$  inch to  $\frac{1}{2}$  inch, according to requirements. Around

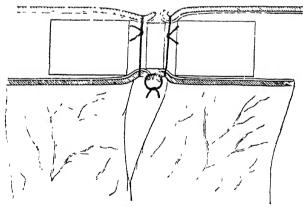
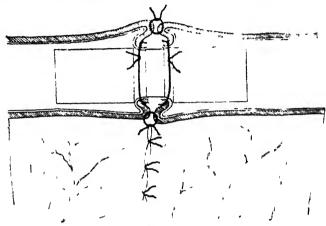


Fig 21 - First stage of operation

the centre of the tube run two grooves about  $\frac{1}{4}$  inch apart, sufficiently deep to prevent a ligature from slipping, and the intervening portion is on a slightly lower level than the rest of the tube. After resection

a stitch is passed through all the coats of the bowel and the mesentery on one side, and then on through mesentery and bowel on the other side and tied, thus approximating the divided ends and preventing retraction of the mesentery. The tube is now inserted and the two



Lig 22 -Open ton complete

ends slipped together evenly over it. Each end is brought well down over its corresponding groove and firmly secured by a circular ligature passed through the gap in the mesentery. The enterorrhaphy is completed by bringing the serous surfaces together with Lembert's sutures (see Fig. 21, 22).

Mr Bailey has operated with moderate success on dogs by the above method.



Ing 3 A suture of running thread as placed in end of bowel.

M1 Mulphy4 (U.S.A.) advocates end to end anastomosis by means of his buttons. The intestine is cleared of its contents and clamped, the

mesentery of the part to be excised is ligatured and the intestine is excised, next is applied a top stitch running along the incised edge, beginning opposite the mesentery and continuing down to the mesentery; one return over-stitch is taken at the mesentery, and then the top stitch is continued up the opposite side to the starting point (Fig. 23). This constitutes the "puckering string," and when tied round the stem of the button which is then inserted, draws the cut edge within the clasp. The other end is inserted in a similar manner, and the button is then pressed together (Fig. 24)

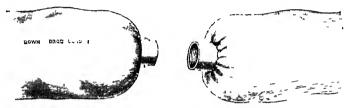


Fig. 24 - Button in end of bowel ready for closing

Murphy<sup>5</sup> says that cicatricial contraction does not occur in cases united by this method, as the several histological layers are approximated and the union is linear. We scarcely see, however, how the histological explanation can be correct, seeing that the junction is effected by the sloughing of the portions included between the ends of the buttons. Although the method is undoubtedly expeditious, the presence of the large metal button in the alimentary tract would appear to present subsequent dangers of obstruction which absorbable materials would avoid

Knut Haigh after describing a successful case of gastio-enterostomy with Senn's plates, draws attention to the possible dangers following the use of Murphy's buttons —

- (1,) The maigins are supposed to, and really do, produce pressure gangrene, thus opening a source of infection whose limits are unknown and not within our control
- (2,) A foreign body of the size of these buttons has repeatedly produced intestinal obstruction in cases that have come under the knowledge of the author, notably in cases of gall stones.
- (3,) The plane of juxtaposition seems to be too small in extent to produce sufficient adhesions

Duodenal Ulters.—Dr. Kelynack i after stating that successful surgical treatment must be based on accurate knowledge of the subject, gives the following useful record.—

In the post-mortan Reports of the Manchester Royal Infirmaty on medical cases examined since the year 1867 I can find only ten cases of undoubted primary duodenal ulcer. I have, of course, excluded all those as-ociated with burns, and those where it appears to have been secondary to other conditions, such, for example, as gall stones. Only six of these ended by intraperitoneal perforation, the other four dying from harmon hage

These cases suggest so many points of pathological interest and suggeal importance that I here venture to append brief abstracts.

- F. C. aged nineteen. Ulcer on posterior surface of duodenum the size of shilling piece, with aperture of perforation the size of a threepenny bit  $\lambda$  cute general peritonitis with much dark grumous fluid in the abdominal cavity.
- H D, a young adult—Just beyond pylorus was situated a triangular-shaped ulcer. Pun hed out appearance. Fedges not at all infiltrated At bit e of ulcer small circular aperture into peritoneal cavity. Base of ulcer non-adherent. By its side was a diverticulum, from the duo lenum projecting backwards, about one inch broad and a half to three-quarters of an inch deep. No cause apparent for its formation. Acute general peritonits with liquid facial matter in abdominal cavity.
- J. B., aged twenty six. Round ulcer three eights of an inch in diameter and half iach beyond pylorus. Dasc formed by p ritoneum only, in which was small perforation. Acute peritonitis, with facal matter in abdominal cavity.
- J H, elderly male Circular ulcer on posterior surface immediately beyond pylorus, diameter ‡ inch, margins black and indurated Perforation through base into peritoneal cavity, acute peritonitis
- M F, aged fifty-eight. Ulcer just beyond pylorus on anterior wall, size of threepenny bit Characteristic punched-out appearance Liver lying towards posterior wall, and separated by considerable interval from lower ribs. Transverse slit along floor of ulcer, which is formed alone by serious coat. Acute peritonitis. Facal material and much inflammatory lymph in abdominal cavity.

The last of these cases of perforative duodenal ulcer is of considerable interest from the interesting clinical history of the manner of onset.

P. M., aged nueteen. On January 4th he walked from Warrington to Manchester, and on arrival at the latter place suddenly experienced violent pain in the stomach, vomited, and fell down unconscious. Death occurred the following day.

Necropsy —Immediately beyond the pylorus on the anterior surface was a small round perforation corresponding with the floor of a round ulcer, which presented a characteristic punched out appearance. The edges were very distinctly indurated Facal matter was seen still oozing through aperture, remainder of duodenum normal, stomach congested, peritoneum, acute diffuse septic peritonitis

Although the group of cases ending by hæmorrhage consequent on erosion into the vascular structures forming the floor of the ulcer, or due to extension of the ulceration into neighbouring vessels, strictly speaking does not come within the field of our present consideration, yet the measures necessary for the treatment of perforation may possibly, in some modified form, ultimately be found to prove useful in the arrest of fatal harmorrhage, and hence the brief record of even a few cases may assist in indicating the lines of surgical attack

C. W., nador aged. At the junction of the first and second portions of the duodentan, on the internal apart of the gut, was a large ulcer of the size of a florm. He from was formed by the inducated head of the pancies. In the centre of the fleor there appeared a small aneurismal dilatation of an artery, which had appeared into the intestine. The edges of the ulcer were thickened and readened, but the neighbouring part of the bowel was healthy. The untestines contained a grantity of dark tarry material, consisting apparently of disintegrating blood stomach was somewhat dilated, the peritoneum was normal

I T aged thirty-three \ \ cucular ulcer, rlin by r in , situated in the first part of the duodenum immediately beyond the pyloius and on the posterior wall, base formed by pancreas, stomach dilated and distended with blood and clot, which had apparently come from ulcei

I H, aged forty six. Ulcer at commencement of duodenum on posterior wall in by in and nearly in in depth, edges founded, firm and clean cut. The base presented small blood clot in orifice of large arters passing through head of pancieus, stomach dilated, duodenum filled with fluid blood

In the above cases death appears to have been due to an acute hamorrhage. In other instances repeated hamorrhages may quite as surely lead to the tatal termination, as in the following case, which I recently had the opportunity of examining post mortem

W S, aged twenty-nine Patient gave history of hæmatemesis, with other signs of gastric ulcer. Lately, the vomit had assumed a brown colour, and the stomach had become dilated

Newpy -Immediately beyond pylorus on the anterior wall was a large chronic ulcer having a diameter of an inch and a half Edges were rounded, smooth, indurated, and undermined, so that a large cyst-like cavity existed beneath borders of ulcer Floor of ulcer adherent to gall bladder, being separated only by a thin membranous layer. Stomach much dilated.

It is somewhat interesting to note that all the cases of duodenal ulcers recorded in our hospital pathological reports occurred in males. In seven the exact age was obtained, giving an average of nearly thirty-three years

Dr. Lewis S Pilchei reports a large post-peritoneal diverticulum communicating directly with the duodenum, and containing partially digested food and bile The walls were shown to be composed of inflammatory connective tissue. He suggests as a possible cause,

thrombosis of the vessels and necrosis of part of wall of the duodenium, and gradual invasion of the post peritoneal tissue. The symptoms during life were at first abdominal pain, tympanites and constipation; later, abdominal tumour, wasting, and heetic.

Mr. H. Percy Dean reports a case of chronic ulcer of the duodenum successfully treated by excision, death takin, place two months later from acute intestinal obstruction (me to a band.

Enteroplacty. Mr Herbert W. V. w Sam' describes two cases of

stricture of the intestine successfully treated by a new method, to which he has given the name of enteroplasty. The plan is only applicable to non-

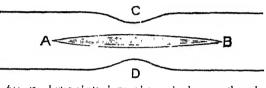


Fig. 25. I after plasty slawing longe admid meision through statum.

malignant stricture, and seems to be a distinct auxance on the older methods of treatment in such cases

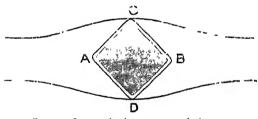


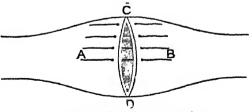
Fig. 26.—Longitudin d mers on stretched rato a

Burfly, it consists in making a longitudinal musion (A B, Ag 25) in the length of the bowel through the stricture and the bowel on the side of the gut opposite its mesentene attachment, the gut mean-

while being clamped above and below. The gut is then caught hold of, on either side of and about the centre of the mersion (Fig. 26, CD)

and pulled apart so that it forms a diamond-shaped opening (Fig 26) Further traction makes the longitudinal incision into a transverse one (CD, Fig 27)

The mucous membrane of the upper



 $I_{I_{\infty}}$  >7 -Sutures partly applied, mating the incision transver ely,

part of the transverse wound is sewn to the mucous membrane of the lower transverse wound with a continuous suture. Many Lembert's

sutures are now passed and the wound in the gut closed. As thus performed the operation is the adaptation of pyloroplasty to an intestinal stricture.

During the past year I have adopted this method in a case of simple stricture of the ascending colon with perfect success. Although the principle employed was the same as in Mr. Allingham's cases, in that enteroplasty, instead of enterectomy, was done, I was able to shorten the time of operation considerably by using a decalcified bone bobbin and uniting the intestinal wound by a continuous mucous and serous suture.

Mr. Alingham's first case of enteroplasty was also one of great chircul interest. The patient sufficied from chronic intestinal obstruction which was not complete at the time of operation. A diagnosis of obstruction in the large intestine was made and the abdomen opened in the left that region, a greatly distended sigmoid flexure was found, but no apparent cause of obstruction. His colotomy was performed, the bowel being opened and a Paul's tube inserted, with, however, a negative result. Next day the abdomen was opened over the execum—the execum, ascending and transverse colon were found much distended, but no cluse of obstruction could be found in them. On passing the small gut through the fingers two coils were found adherent about the junction of the ileum and jejunum, and when separated a fibrous structure was found in one coil opposite the adhesion, almost occluding the calabre of the gut.

Intersusception - Mi A. E. J. Barker is cites several cases of intimate epiton in children in which the intussusception was apparently reduced by inflation and manipulation, but where the conditions soon returned. He supposes that all were reduced except the last and most essential part, hence the recurrence. In one case the reduction was apparently completed four times in succession, and yet ultimately gangrene, collapse and death resulted. He advocates early abdominal section while the gut is still in farely good condition.

As the result of his experience he has arrived at the following conclusions:—

- (1,) In all cases of intussusception in children injection of water or manipulation should be at once resorted to, if the patient is seen within a few hours of the onset of strangulation.
- (2,) If these means fail after a fair trial (not too much prolonged), laparotomy should be at once performed.
- (3,) That there is a certain proportion of cases amongst all varieties of intussusception which no amount of injection will relieve, or in which

injection would be dangerous, and these can only be dealt with by opening the abdomen.

Bearing on the same subject Dr W C. Beatley and Mr. G W. Ridley<sup>12</sup> report a case of ileo-caecal infussusception in a child aged eleven months in which the bowel was apparently completely reduced on two occasions, at first with water pressure, then on recurrence with air Ultimately laparotomy was performed and reduction obtained with a successful result

In the discussion on intestinal obstruction at the annual meeting of the British Medical Association, Mr. Page 13 holds that after careful examination under chloroform, and failure to detect the seat of the trouble, immediate abdominal section is indicated

Mr. Hutchinson has the impression that laparotomy for intestinal obstruction of unknown origin is very seldom successful, nor is he free from suspicion that operation in itself is a cause of danger—if it should become a common practice to operate early, and without attempting to relieve by other means the fatality in these cases would be greatly increased.

He recommends vigorous kneading of the abdomen (under anæsthesia) the intestines being pushed from side to side, the patient being then turned on his bally and well shaken, lastly being held head downwards and again shaken up and down. Enemata are also administered with the body inverted. Many successes have followed this manipulation

Morison stated that in all the cases he had operated upon, when seen post mortem, intussusception excepted, he had never observed one likely to have been benefited by Mr. Hutchinson's plan of treatment

Mouson showed that acute typhlitis and perityphlitis sometimes present the symptoms of obstruction, and called attention to the danger of vigorous manipulation in these cases

Rivington considered the heavy mortality of laparotomy for obstruction in the London Hospital to be due to the fact that the surgeon is called in too late.

Newman, as did nearly all the participators in this discussion, urged carly administration of chloroform, careful examination of the relaxed abdomen, followed by an immediate exploratory incision. Should the cause of obstruction not be found the bowel should be short circuited or enterostomy performed

We are firmly of opinion that all cases of intestinal obstruction should be seen by a surgeon at the earliest possible time, when if called for, operation may be undertaken before the case is rendered sutures are now passed and the wound in the gut closed. As thus performed the operation is the adaptation of pyloroplasty to an intestinal stricture.

During the past year I have adopted this method in a case of simple stricture of the ascending colon with perfect success. Although the principle employed was the same as in Mr. Allingham's cases, in that enteroplasty, instead of enterectomy, was done, I was able to shorten the time of operation considerably by using a decalcified bone bobbin and uniting the intestinal wound by a continuous mucous and serous suffice.

Mr. Allingham's first case of enteroplasty was also one of great clinical interest. The patient suffered from chronic intestinal obstruction which was not complete at the time of operation. A diagnosis of obstruction in the large intestine was made and the abdomen opened in the left iliac region, a greatly distended sigmoid flexure was found, but no apparent cause of obstruction. Iliac colotomy was performed, the bowel being opened and a Paul's tube inserted, with, however, a negative result. Next day the abdomen was opened over the cæcum—the cæcum, ascending and transverse colon were found much distended, but no cause of obstruction could be found in them. On passing the small gut through the fingers two coils were found adherent about the junction of the ileum and jejunum, and when separated a fibrous stricture was found in one coil opposite the adhesion, almost occluding the calibre of the gut

Intussusception - Mi A. E J Barkei is cites several cases of intussusception in children in which the intussusception was apparently reduced by inflation and manipulation, but where the conditions soon returned. He supposes that all were reduced except the last and most essential part; hence the recurrence. In one case the reduction was apparently completed four times in succession, and yet ultimately gangrene, collapse and death resulted. He advocates early abdominal section while the gut 15 still in farely good condition.

As the result of his experience he has arrived at the following conclusions:—

- (1,) In all cases of intussusception in children injection of water or manipulation should be at once resorted to, if the patient is seen within a few hours of the onset of strangulation.
- (2,) If these means fail after a fair trial (not too much prolonged), laparotomy should be at once performed.
- (3,) That there is a certain proportion of cases amongst all varieties of intussusception which no amount of injection will relieve, or in which

injection would be dangerous, and these can only be dealt with by opening the abdomen.

Bearing on the same subject Dr. W. C. Beatley and Mr. G. W. Ridley<sup>12</sup> report a case of ileo-cæcal infussusception in a child aged eleven months in which the bowel was apparently completely reduced on two occasions, at first with water pressure, then on recurrence with air. Ultimately laparotomy was performed and reduction obtained with a successful result

In the discussion on intestinal obstruction at the annual meeting of the British Medical Association, Mr Page 3 holds that after careful examination under chloroform, and failure to detect the seat of the trouble, immediate abdominal section is indicated

Mr. Hutchinson has the impression that laparotomy for intestinal obstruction of unknown origin is very seldom successful, nor is he free from suspicion that operation in itself is a cause of danger—if it should become a common practice to operate early, and without attempting to relieve by other means the fatality in these cases would be greatly increased.

He recommends vigorous kneading of the abdoinen (under anæsthesia) the intestines being pushed from side to side, the patient being then tuined on his belly and well shaken, lastly being held head downwards and again shaken up and down. Enemata are also administered with the body inverted. Many successes have followed this manipulation.

Morison stated that in all the cases he had operated upon, when seen post mortem, intussusception excepted, he had never observed one likely to have been benefited by Mr. Hutchinson's plan of treatment

Mouson showed that acute typhlitis and perityphlitis sometimes present the symptoms of obstruction, and called attention to the danger of vigorous manipulation in these cases

Rivington considered the heavy mortality of laparotomy for obstruction in the London Hospital to be due to the fact that the surgeon is called in too late.

Newman, as did nearly all the participators in this discussion, urged carly administration of chloroform, careful examination of the relaxed abdomen, followed by an immediate exploratory incision. Should the cause of obstruction not be found the bowel should be short circuited or enterostomy performed

We are firmly of opinion that all cases of intestinal obstruction should be seen by a surgeon at the earliest possible time, when if called for, operation may be undertaken before the case is rendered hopeless by delay. We can point to numerous cases of the kind referred to by Mr. Hutchinson where we have undoubtedly saved lives which would have been sacrificed had any of the other methods of treatment short of operation been adopted.

Dr. W. Kidd" reports four cases of intestinal obstruction due to fæcal masses in the ascending colon and associated with movable right kidney, the latter condition being detected on the subsidence of the former under treatment. All the cases occurred in women

Mr. James Bury 15 showed to the Pathological Society of London a specimen showing enormous distension of the sigmoid flexure, with ulceration and perforation, the result of simple chronic constipation in a man aged seventy-three

At a meeting of the Liverpool Medical Association, M1 R W Murray 16 showed a pathological specimen of an undeveloped ileum, which was shut off from the terminal cul-de sac of the jejunum by a thin septum. The child, which was three days old and had a left-sided harelip, died with symptoms of intestinal obstruction

Dr. Trzebicky<sup>17</sup> by comparing the notes of published cases and his results of operations on dogs, considers himself justified in concluding that about half the jejuno-ileum (about 9 ft.) may be removed without unjustifiable risk, provided that no complications are present.

Albert<sup>18</sup> suggests a new method of jejunostomy in carcinoma of the pylorus, the conditions being unfavourable for resection and gastroenterostomy. After the abdominal cavity is opened by a transverse incision on the right side the presenting portion of the jejunum is drawn through the opening; the greater part of the incision is then closed by provisional sutures. Anastomosis is now established at the base of the loop of jejunum between the proximal and distal portions in order to permit of a direct flow of bile and pancreatic juice from the upper to the lower part of the alimentary canal

A second short incision is now made through the skin, parallel with and about 1½ inches above the first incision, the skin between the two openings being detached from subjacent structures and raised, the loop of jejunum is now drawn under this bridge, attached to the edges of the second incision and opened with the cautery on the third or fourth day.

The author reports two cases . one lived eight weeks and died from the progress of the disease; the other succumbed to collapse three hours after.

The object of the method is to prevent the subsequent regurgitation of the intestinal contents

Should this operation prove effectual it may render jejunostomy

worth doing in some otherwise inoperable cases of gastric cancer, but the oldinary operation of jejunostomy prolonged existence under such distressing circumstances that many surgeons thought it an altogether undesirable procedure, which view we expressed two years ago before the Royal Medical and Chirurgical Society

Perforation of Typhoid Ulceration of the Intestine.—At the annual meeting (1894) of the British Medical Association, held at Bristol, Mr. A Pearce Gould bed a discussion on the operative treatment of the above. He said. Operation is stated to have been performed in twenty cases for this condition; for Mr. Sutton's case must be added to the nineteen collected by Dr. Van Hook in his article in the "Medical News,' November 21st, 1891. At least two of these cases should be excluded as of doubtful nature, and objection may possibly be taken to Mr. Taylor's case for the same reason. If so, it leaves us with seventeen cases and one recovery, but if the doubtful cases are included, we have twenty cases with four recoveries.

The details of the operation are closely like those for perforated gastriculeer (see "Surgery of Stomach"). Statistics show that perforation of the bowel occurs in from 2 5 to 3 per cent. of all cases of typhoid fever, and that it is the cause of nearly 20 per cent. of the deaths in this disease. Rare cases of recovery after this accident are to be found in medical literature recorded by Tweedie, Todd, Dr. Long Fox and others. Cayley's words are: "Recovery does in rare cases follow perforation of the bowel in enteric fever." He has himself known it happen in six cases, and in three of these an abscess formed.

Dr. Van Hook, of Chicago, at the close of an article in which he records a successful case, sums up his position thus:—

- (1,) There is no rational treatment for perforation in the course of typhoid fever, except laparotomy
- (2,) The indication for laparotomy when perforation occurs in typhoid fever is imperative
- (3,) The only contra-indication is a moribund condition of the patient
- (4,) Collapse is often at least temporarily relievable by hot peritoneal flushing.
- (5,) The stage of the fever is not to be considered as an indication, or as a contra-indication for laparotomy
  - (6,) The severity of the typhoid fever is itself not a contra-indication.
  - (7,) Early laparotomy affords the most hope.
- (8,) The symptoms of peritonitis should not be awaited before operating.

- (9.) In taking charge of all typhoid fever patients, it is the physician's duty to be ready, in case of performion to perform laparotomy
- (10,) The published statistics of laparotomy for this condition are stringly in favour of operation
- (11.) The technique, though not complicated, demands much thoughtfulness, acquired dexterity, great rapidity and thoroughness

Mr (rould remarks that those who have seen the flickering flame of life in typhoid fever ruthlessly extinguished by a sudden perforation may, nay must, doubt the power of surgery to save. Here, as elsewhere, a wise selection is the truest wisdom.

REFERENCES.—<sup>1</sup> "Pamietnik Tow. Lik War," No. 2, 1893, "Przeglad Chirurgiezny,' Tom I, Liszyt II, 1893, "Brit Med Journ," Feb 3, 1894, <sup>3</sup> Ibid, July 14, 1894, "Lancet,' Sept 15, 1894, <sup>5</sup> Ibid, Sept. 5, 1894; <sup>6</sup> "Annals of Surgery," June, 1894, <sup>7</sup> 'Brit Med Journ,' Oct. 27, 1894; <sup>8</sup> "Annals of Surgery," July 1894, <sup>9</sup> "Brit Med Journ," May 12, 1894; <sup>19</sup> "Lancet," June 23, 1894, <sup>11</sup> "Brit Med Journ," Feb. 17, 1894; <sup>12</sup> Ibid, April 28, 1894; <sup>13</sup> "Therap Gaz," Feb 15, 1894, <sup>14</sup> "Lancet" July 21, 1894; <sup>15</sup> "Lancet," Feb 10, 1894, <sup>16</sup> Ibid, May 25, 1894; <sup>17</sup> "Przcylad Chirurgiezny" and "Lancet," Aug 4, 1894, <sup>18</sup> "Wien. Med. Woch.," No. 2, 1894, <sup>19</sup> "Brit. Med. Journ," Oct. 20, 1894.

## JAUNDICE.

Sympsis —(Vol. 1894, p. 384) Oil of Turpentine.

# JOINTS (Arthritis),

Synopsis—(Vol 1894, p. 392) Injections of Copper Phosphate, 2 solutions are used (1.) Crystallized Sodium Phosphate, 5 parts, dissolved in mixture of Glycerine and Distilled Water, each 30 parts, (2.) Copper Acetate, 1 part, dissolved in Glycerine and Distilled Water, each 20 parts, mix and shake before using Inject a syringeful under antiseptic precautions and seal the wound with Collodion For hydrarthrosis of knee, frictions with the following, R Lanoline, gr 60, Dermatol, gr 15, Tincture of Iodine, gr 10, Ess of Wintergreen, gr. 5; M Rendu injected Corrosive Sublimate, 4 to 1000, after aspirating and removing pus from joint.

# KIDNEY (Surgery of the). E Hurry Fenwick, FR.CS

The effect of Chloroform Narcosis upon the Kidneys—Rindskopf' remarks that any acute damage to the internal organs as a consequence of chloroform inhalation has hardly been looked for in man. From a review of the experimental evidence he shows that chloroform, however administered to animals, has a profound influence upon the the organs, chiefly in the shape of degenerative changes. In fatal cases of chloroform narcosis in man, a necrosis in the cells of the liver, kidneys, and heart has been found by Fraenkel and one or two others. Clinically an investigation of the urine has seldom been made. Luther found albumen and casts in the urine in some cases, but the author does

not agree with him that the urine remains normal when there are no after effects of the chloroform Rindskopf has examined the urine in one hundred cases before and after the narcosis Out of the one hun dred cases, ninety-three were available for the purpose in hand, and in thirty-one of these positive results were obtained. Albumen was found in six, albumen and cylinders in six, cylinders in nineteen, cylindroids in four, leucocytes in twenty-one, various epithelial cells in nineteen, and erythrocytes in six, but the latter were probably not due to the chloroform. The albumen was present only in traces. and disappeared by the third day. Neither the character of the operation, not the taking of the anæsthetic badly, nor the two kinds of chloroform (officinal or Pictet's) used, seemed to have any influence, so that the real (chemical) agent was the chloroform. This idea is also confirmed by experiment and by morbid anatomy. The duration of the narcosis and the amount of chloroform used were important factors. In the thirty-one cases, the average duration and amount were 60 mins, and 31 5 g. respectively, as against 40.5 mins and 26 g. Which of these two factors is the more important is doubtful, but the author would think that the amount should be put first. He draws the following practical conclusions (1,) That the urine should be examined before and after the narcosis, and prudence exercised in using chloroform in renal disease, (2,) That the amount of chloroform given should be limited by using the method of permanent dropping (drop bottle), (3,) That the chloroform narcosis should be, even where it cannot be done without, limited in duration as much as possible, and (4,) That chloroform should not be administered to the same individual at an interval of one or even more days, lest the kidneys, already slightly damaged, should lead to a fatal result

Wunderlich has examined the urine in one hundred and twenty-five cases before and after anæsthesia. He makes the following deductions (1,) An already existing albuminuma is often increased by etherization; (2,) Albuminuma can be caused by the exhibition of either ether or chloroform, but more often with chloroform; (3,) Casts appear in the urine more often after chloroform than with ether, the proportion being 34 8 to 26.4; (4,) When casts are already present both anæsthetics have the power of increasing the number.

Dr. W. W. Russell \* examined two hundred cases for casts, with the following results —

In 23 per cent of the two hundred cases albumen was found before the operation, and 33 per cent albumen was found after the operation. In 10 per cent, the albuminuma was therefore due to the operation

Oberative Proceedings in advanced Age - Dr Gibson 5 writes on the inportant subject of the effect of operations upon persons of advanced age He finds that 50 per cent of the patients after seventy years of age die after operation from uraemia. Death from uraemia occurred not earlier than the eleventh day and not later than the thuty-second The average day was the fifteenth day, a day of some prognostic importance On closer examination of his statistics the following important fact is brought out very clearly, viz, that the mortality of operations in old age follows upon procedures attacking the genito-urmary system, and that all other operations undertaken at the said age have only a mortality of 4 per cent due to uræmia, and 20 per cent due to all causes. Moreover, if a critical examination is made of the cases of operations upon the bladder and urethra the mortality will be found to be very great. Thus, there were seventeen cases of urinary operations with eight deaths, six of these being due to uræmia. Hence, 25 per cent. of all cases were urinary, and operation yielded 43.75 per cent of the total mortality. Dr. Gibson notes that iodoform has been found especially deleterious in advanced age. Where there is no actual supputation it should give way to dressings sterilised by heat alone. He considers that the vague complex of symptoms known as iodoform poisoning has often been ascribed to uræmia, the two conditions masking or accompanying each other He lays stress upon the valuable hint of renal inadequacy afforded by a pale and pasty countenance, a persistently contracted pupil. marked arterial tension, unexplained gastric mitability, and a very dry His tables show that ether was used exclusively for general anæsthesia, and the question arises whether ether could have been replaced to some advantage by chloroform

Nephrorrhaphy — McArdle raises a waining note against the intrarenal anchoring of sutures in nephrorrhaphy. Barth 6 showed a specimen of a kidney containing a necrotic centre; it was produced by the occlusion of one of the arterial arches by the anchoring suture. A similar condition has been noted as the result of puncture. One of the large arteries was obstructed, hæmorrhagic infarction took place, and ultimately necrosis

Sarcoma of the Kidney in Infants—Contrary to the opinion generally accepted that sarcoma of the kidney in children is inoperative, Dr Abbe, of New York has published a series of three cases in which

large tumours 21 lbs to 71 lbs, were removed from children fourteen months to two years old, with perfect recovery and perfect health in each case for a year. In both instances a transverse incision was employed, the child being in the Trendelenburg posture. second case, that in which a growth of 74 lbs. was ablated from an miant weighing 15 lbs is most interesting, for the growth was found to have affected a narrow layer of the upper end of the kidney. Critical examination showed that it was possible to leave a large part of the kidney. The turnour and one and a half inches of kidney was therefore amputated, and the kidney stump was sutured and replaced in loin. The greatest care was given to sustaining the child's heart action by maintaining the inclined position, not only throughout the operation but continuously for the succeeding day or two, the body being kept at an angle of thirty degrees. The added security due to keeping the limbs swathed in cotton, to the liberal use of hot water bottles, to occasional hypodermics of brandy and strychnine, and to enemata of hot black coffee, brought the child through. Commenting on these cases Abbe says, "The Trendelenburg position will be found as great an aid in renal as in pelvic surgery, for it checks the profuse venous hæmorrhage, and the position gives natural dramage of the tumour itself before removal '

REFERENCES—"Deut. Med Woch," Oct 5, 1893 ("Brit. Med. Journ.," Epit, Oct. 28, p 69, 1893); "Epit., Jan 21, 1893, par. 59, "Bettiage für Klinisch Chirurgie," Bd xi, Heft 2, 1894, 4" Johns Hopkins's Hospital Reports," 11, 1894; 5"Annals of Surgery," p. 426, vol xviii, 1893; 6" Deut Gesell für Chirurgie, 22nd Congress, p 243, 1893, 7"Annals of Surgery," vol. xix., p 58.

#### LABOUR.

Van Waters' remarks that the beneficial action of a suppository in the rectum in cases of constipation is widely known. He asks. Why should not the same good result follow the use of a suppository in uterine mertia, and what more ready and effective suppository could we have than the hand? Hence, when the case has so far progressed that we are satisfied that it is time for delivery to take place, and yet mertia has supervened, the hands should be rendered thoroughly aseptic by the use of water, soap, and a brush, and afterwards a creolin solution. Then, after the administration of a little chloroform, the hand, well anointed with vaseline, should be gradually and slowly introduced into the vagina. As soon as it has remained there a few moments pains will commence and increase in severity, in some cases to such an extent that the hand has to be withdrawn. In

the cases in which Van Waters has resorted to it the results have been gratifying

Markoe practises a modified form of Crede's method of removing the placenta. To accomplish this successfully and with the least discomfort to the patient, three things are necessary. First, the patient must relax the abdominal walls as much as possible. Second, the uterus must be firmly contracted. Third, the axis of the uterine canal must be made to conform to the axis of the vagina. If these three essentials be present and the placenta is not absolutely adherent to the uterine wall, the expulsion can be accomplished with two fingers and but little effort.

"As in all obstetric operations, before proceeding the bladder should be emptied, especially in this manipulation, as a distended bladder forces the uterus upward and prevents the easy handling of the uterus. Then, standing at the side of the patient, her knees being drawn up, one hand grasps the fundus through the abdominal wall and ascertains the precise direction of the uterine canal being known, all that is necessary to bring the axis of the uterus in line with that of the vagina is to gently press the fundus backward toward the promontory of the sacrum, thus throwing the cervical portion of the uterus forward The obliteration of this angle reduces the resistance to the minimum, thus diminishing the force requisite to accomplish the expression. The next step is to direct the pressure upon the fundus in the direction of the vagina, care being taken that it be kept well back, in order that the angle may not recur. If this is properly carried out, the placenta is received in the other hand at the vulva"

REFERENCES - " "Brit Med Journ", "New York Med. Jouin," March 17, 1894.

Synopsis — (Vol. 1894, p. 400) Draper commends Wine of Ipecacuanha to induce labour pains, giving 15 drops at a dose Introduction of disinfected hand into vagina to overcome uterine inertia

# LARYNGITIS (Chronic) Greville MacDonald, M.D.

It may be thought that so simple an affection as this can afford no new information, such as would be of service to readers of the "Medical Annual" But we are daily becoming more conscious of the dangers arising from increased familiarity with the objective features of disease, and this not only among specialists, but even among the general practitioners. In making accurate diagnosis of the actual condition of the larynx in a case of chronic or frequently recurring hoarseness, we are in danger of taking it for granted that the local condition represents the whole of the trouble, and to act as though local treatment were all

that is required. So that I would venture to insist at the outset of my remarks upon the fact that probably we never have a chronic inflammation of a mucous membrane without some general condition that will account for the patient's inability to throw off the acute attack; the only exception being where the mucous surface is exposed to continual sources of irritation, as in those working in a dusty atmosphere; or where the mucous membrane is systematically abused, as in the faulty voice production of intualistic clergymen, music-hall singers, and elementary school-teachers.

Chronic larengitis is in young men frequently attributed to the breaking of the voice which occurs at puberty, and is especially observed in those who suffer from spermatorrhoea. Unless carefully treated at this period, both constitutionally and locally it is very prone to become inveterate, and to last the patient for the remainder of his Then it is occasionally observed in tuberculous subjects, and life may sometimes be regarded as a precursor to lung disease, although not nearly so frequently as is maintained by some physicians here we must be sure of drawing a sharp line of distinction between chronic laryngitis in a subject with a tuberculous tendency and the early stages of tuberculous larvingitis. The former presents no characteristics different from those of ordinary chronic larvneitis, while the latter has a great tendency to be accompanied by the local anæmia which is so characteristic, and to a degree of dysphonia out of all proportion to the actual objective evidence of inflammation. Of course in later stages we have more characteristic indication of the seventy of the disease, in the form of ulcerations on the posterior wall, œdema, etc.

TREATMENT —The local treatment of chronic laryngitis depends upon the degree of hyperæmia, the amount of hyperplasia, and the sensitiveness of the patient to fresh attacks of inflammation. We rely for the most part upon astringents, as distinguished from steam inhalations which are so useful in the acute or sub-acute attack. Where there is very great hyperæmia and a good deal of expectoration, weak astringent sprays are exceedingly useful, and sometimes are sufficient to cure cases of long-standing. The best of these are Perchloride of Iron, 3 to 8 grains to the ounce of distilled water, or Chloride of Zinc, 2 to 5 grains to the ounce. In the more chronic cases where there is much hyperplasia, the weak astringents are not so useful, and then we use the strong astringent paints, such as the perchloride of non,  $\frac{1}{2}$ , 1, or 2 drachms to the ounce. This should not be applied oftener than twice a week, and the voice should be kept at rest during the course of treatment, which may extend over a

period of six weeks or more, the intervals between the applications gradually increasing. Where the patient is extremely susceptible to attacks of fresh cold, steam inhalations may be used often with great advantage, although it must be remembered that such treatment if continued too long is apt to aggravate the susceptibilty. The **Yapor Pini Sylvestris** and the **Yapor Cubebæ** of the Throat Hospital Pharmacopæia, are among the most serviceable.

# LARYNX (Stenosis of the).

Greville MacDonald, MD.

Although stenosis of the glottis must be considered merely as a symptom, yet it will prove profitable to consider it as a condition per se, since so many different diseases are accompanied by it, while it is altogether the most important abnormality with which the laryngoscope has to deal. One may even say that the correct diagnosis of the various forms of narrowing of the glottis alone would justfy, if not necessitate, special skill in the use of the laryngeal mirror

It is scarcely necessary to say much about the symptoms, as these are familiar enough to every one. But it is desirable to draw a distinction between larvingeal stenosis and constriction of the trachea or large bronchial tubes; for sometimes when a patient is in extremis it is not easy to discriminate, and a tracheotomy may be uselessly performed when a little more care would have discovered the impediment to be lower in the air passages than the glottis. In the first place, in laryngeal stenosis the laryny at each inspiratory effort sinks considerably towards the thorax, a point familiar enough as one of the more serious difficulties in trachcotomy. Indeed the external, supra-glottic, atmospheric pressure may be sufficient to drive the larvny almost beneath the sternum. On the other hand, if the seat of obstruction be lower down in the trachea the line of separation between the thoracic vacuum and the external pressure will likewise be below the laryny, and the latter will not descend to any material degree Again, in laryngeal obstruction the head is generally thrown slightly backwards, whereas when it is tracheal or bronchial the tendency is to stretch the head forwards The stridor is different in character in the two cases. The noise produced by the vibrating vocal cords during inspiration is necessarily louder than that due to the rushing of air through a constricted tracheal passage The laryngeal stridor is described as being metallic in its ring, whereas the inspiratory sound of tracheal stenosis is rather hissing or wheezing. The voice is usually considerably different in the two cases. In laivngeal stenosis it may be scarcely affected; it may be loud and hourse, the patient may be completely aphonic, or it may in certain cases, possess the character known to specialists as phonative waste of breath, that is



Zig I Acate O Jeneite is I aveignts



 $\mathcal{L}_{B_{0}}(R)$ Smortorti (1 dema



Fig. C Acute Perichondutis

Abscess of the Right False Cord and Subglottic Swelling

to say, a greater or less proportion of the voice-producing breath passes through the glottis without enforcing any vibration of the coids. The phonative waste occurs in any case where, even though there be co-existing narrowing of the glottic space, the cords for one reason or another cannot be properly approximated. But when the stenosis is situated lower than the larging the voice is in no way altered in character, being only weakened from the small current of air that can pass the constitution

Stenosis of the larynx may occur from either intralaryngeal or extralaryngeal causes, the former being of the greater import. They may be divided into those conditions which arise from some alteration in the laryngeal structures, and those which are produced by paralysis or reflex initiation. The former may be further divided into  $(a_i)$  Alterations resulting from inflammation, and  $(b_i)$  Those which are due to the presence of new growths.

(a,) In the first place acute inflammation may be accompanied by so much ædema that the glottis, or perhaps only the space above, may be completely obliterated (See Fig. A, Plate XV). We may have so much swelling of the epiglottis or arytenoid cartilages that the upper openings of the larvny are completely obliterated Again, the inflaminatory swelling may be confined subglottic region altogether, and although there may be but little sign of inflammation in the supra-glottic region, yet the lower surface of the vocal cords may be so swollen with cedema as to produce complete stenosis. To understand this it must not be forgotten that the cords during approximation do not project like two shelves, but rather like two wedges, the apices of which are the vibiating maigins. In other words, the lower surface of each coid does not look downwards, but downwards and inwards. And it is this swelling of the sub-lottic portion of the cords which may produce such serious interference with respiration as to necessitate tracheotomy (Fig. B, Plate XV) According to some this is especially hable to occur in the case of children, while we find it not infrequently in less degree in the chronic laryngitis of adults. But the more typical cedema of the upper portions is usually found in conjunction with syphilitic ulceration, malignant disease, and phthisis; while it is more rarely observed as the result of simple acute inflammation, and then is usually a consequence of scald Although not directly due to inflammation I may yet refer in this place to a rare sequela of an inflammatory, possibly always diphtheritic sore throat, viz., bilateral paralysis of the abductors of the cords (Fig. F. Plate XVI). This appears to be due to an affection of the muscles themselves, which lying immediately

beneath the inucous membrane of the posterior wall of the larynx would appear to become inflamed with it and thus to lose, once and for all, their power of contraction. In such a case the prognosis would be extremely grave so far as the question of the ultimate removal of the tracheal cannula was concerned, whereas the prognosis of acute cedema from the same point of view is eminently good But the simple cedema will generally be successfully combated, especially when the diagnosis is made in an early stage, by scarification with a guarded laryngeal lancet, and by the discontinuing of all steam inhalations and the substitution of ice continually dissolved in the mouth, but not applied to the neck for fear of the shock increasing the narrowing of the glottis by reflex action. But where the symptoms steadily progress in spite of such endeavours, either tracheotomy or intubation, of which more presently, should be performed before the patient is fighting for his breath. Perichondritis may also produce such an amount of swelling of the intralaryngeal structures as to encroach senously upon the glotus. We find it occasionally so in the acute exanthemata, e.g., typhoid and small-pox, while of late years I have observed it occasionally in the course of influenza. I have also good reason for stating that it may occur as the result of simple inflammation, although this is strenuously denied by some authorities. But undoubtedly it is most often seen as the accompaniment of malignant disease, syphilis, and phthisis. Briefly speaking, whenever with all the indication of acute inflammation, we find an asymmetrical encroachment upon the middle line of the true or false cords, or a unilateral tumefaction of the arytenoid or aryteno-epiglottic fold, we may suspect a perichondritis, which deep-seated inflammation may in have cases terminate in abscess (Fig. C, Plate XV) In simple perichondutis the treatment must be conducted upon general principlesespecially leeches externally, and ice slowly and frequently swallowed. I believe I have good reason for maintaining, as the result of clinical observation, that Sulphide of Calcium, in &-grain doses, has a decidedly beneficial effect, while, should there be either ædema or abscess, the larvngeal lancet will give immense relief and save the patient from the greatly dieaded tracheotomy. A syphilitic gumma, and occasionally a malignant growth may simulate a simple perichondritis, but the history and careful watching of the case will generally save one from error. But when perichondritis is an accompaniment of syphilis or other specific disease there will generally be definite evidence of the co-existence of such Apart from this association extensive syphilitic disease could hardly encroach upon the passages, unless a gumma were responsible. But in the later stages, where the deep ulceration

## PLATE XVI.



Fig. D Papilloma of Larynx

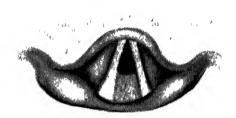


Fig. E.
Subglottic Web



Fig F.

Bilateral Abductor Paralysis of the Cords

of tertiary syphilis has undergone cicatrisation, the contraction of the resulting cicatrix may lead to the development of a web stretching across various parts of the laryngeal cavity, and, increasing in its contraction. may so draw the mucous membrane to which it is attached towards, and even beyond, the middle line as to impede seriously the respiration (Fig E, Plate XVI). It is only with the larvingoscope that such a diagnosis can be made A similar web may rarely be observed with the laryngoscope in the trachea proper, in which case the symptoms would be distinctly different from those of laryngeal stenosis, as already remarked New growths are among the most frequent causes of obstruction in the larvnx In children and even infants, papillomata are not uncommon (Fig. D, Plate XVI), although they are not often of such extent as to cause any symptoms of dyspnæa. In these cases the voice is necessarily destroyed to a greater or less degree ; and impeded laryngeal respiration with grave hoarseness or aphonia generally means in the child a benign growth in or about the coids. In adults malignant growths are more common, especially after middle life. Here the voice may or may not be materially affected, while there may be pain on swallowing, shooting into the ear on the affected side, and, in the later stages, infection of the glands in the neck it must be remembered that both the latter symptoms may not present themselves till a very late stage. So far as one can express the points of laryngoscopic diagnosis in a few words, it may be said that the chief indications of malignancy are, obvious implication of the deeper structures, impaired mobility of the cord on the side affected, ulceration of the tumour or in its immediate neighbourhood, and rapidity of growth But no diagnosis is usually easy in those stages when respiration is much impeded. Finally, while speaking of new growths, it must be mentioned that tuberculosis of the larynx very rarely may give rise to so much narrowing of the glottis that respiration is gravely hampered But although cedema of the arytenoids and epiglottis may be present to an exaggerated degree, it is seldom so intense as to necessitate a tracheotomy. The cases in which such operation may be called for are usually those of subglottic cedema, tuberculous neoplasms of the cords, or myopathic paralysis of one or more muscles But so far from tracheotomy being a common operation in this most distressing disease, the reverse condition is very often observed, viz. great distress from mability to cough and expectorate, owing to the abnormal patency of the glottis due to destructive ulceration of the coids. Where stenosis of the larynx is due to tuberculous tumouis or papillomata, relief can be often afforded by intra-laryngeal operation Finally, we have to bear in mind the possibility of the stenosis being due solely to spasm of the adductors, paralysis of the abductors, or the association of both of these on opposite sides. As is generally known, pressure on the trunk of the pneumogastric nerve, or in the course of the recurrent laryngeal, often induces paralysis of the abductor of the same cord, as one of the earliest symptoms. This in itself is never sufficient to impede respiration to a recognisable degree; but it is occasionally associated, more especially when the pressure is on the trunk of the pneumogastric, with attacks of spasm of the adductor of the opposite cord. and thus, even in the case of an aneurism, it may become necessary to perform tracheotomy for relief of the urgent symptoms of laryngeal stenosis. As has already been mentioned, after inflammatory affections of the throat, we occasionally have a bilateral paralysis of the posterior crico-arytenoider or abductors, in which case operative relief may be suddenly called for, and a tube may have to be permanently worn

Among rarer causes of laryngeal stenosis it must be remembered that foreign bodies, such as a com or a denture, may be lying between the cords; while we must also bear in mind that extra-laryngeal growths or pharyngeal abscess may produce all the gravest symptoms of laryngeal obstruction.

The subject of larvingeal stenosis can hardly be left without referring to the fact that in appropriate cases intubation with O'Dwyei's tubes is rapidly gaming the confidence of the profession in this country. while in its home it has so far established its reputation that the rival ments of tracheotomy and the less formidable operation have become matters of almost household interest. The recent discussion on the subject at the Bustol Meeting of the British Medical Association placed the matter before us in a very forcible manner, thanks to the extremely able paper of Dr. William P Northrup, of New York. He gave it as a rule for the employment of O'Dwyei's tubes that whenever "a progressive, unremitting dyspnæa, despite all previous treatment, allows any considerable part of the posterior portion of the lungs to become non-inflated, when the laboured breathing begins to produce sensible exhaustion, intubation is to be performed promptly" Details of the operation have been given in a previous volume of the "Annual," and it is not necessary to repeat them here. The dangers to life are nil in an experienced hand, and a very little practice on the cadaver will make the operation easily and quickly performed But to the mexperienced, and more especially to those (unfortunately only too many) whom nature never intended to handle any instrument more dangerous than a stethoscope, there are certain risks which should be well realized when discussing the relative merits of tracheotomy and intubation. These are briefly, asphyxia from prolonged and unsuccessful attempts, laceration of soft parts, and false passages. The danger of pushing down false membrane and thus blocking the lower orifice of the tube is, according to Dr. Northrup, extremely small, although the explanation usually given to the two accidents just mentioned is that the membrane has been thrust down. The indications of a detached piece of membrane acting like a valve over the lower opening of the tube are, again quoting Dr. Northrup, (1,) Croupy character of the cough, the tube being in; (2,) Tapping sound; (3,) and most important, Sudden obstruction to out-going air, especially during coughing. But for those who have not yet gained practical experience in the operation, we cannot do better than refer them to Dr. Northrup's most admirable and helpful paper

Synopsis — (Vol 1894, p 403) B. Iodoform, gr. lxxv., Powdered Phosphate of Lime, Higs., Powdered Bone Acid, H. Menthol, gr. v., M. Sig.—Morning and night insufflate into larynx in cases of laryngeal phthiss B. Menthol, gr. vijss – xij., Balsam Peru, gr. lxxv.—cl., Sp. Vini Rect. Higs.; Aquæ dest, Onjss. Sig.—To be used as a spray. B. Pot. Phosphatis, Higs., Iodoformi, gr. lxxv., Acid Bone, Hest., Menthol, gr. vj.—xij. Sig.—As an insufflation in phthisis of larynx. Inhalations, preferably that of Peruvian Balsam., Sprays of opiate and phenolized preparations. Insufflations of powders are all much used. Sedative Swabbings are useful for dysphagia. Lactic Acid, 20 to 80%, applied after Cocainization for tubercular ulcers. Intra-laryngeal injections of Creasote or Menthol Injections of Cocaine are better than swabbing. Galvano-cauterizations for ulceration and infiltration.

## LEPROSY.

T. Colott For, MB

Kalinderot employs with success the following diagnostic procedure. After washing the part with 1 in 1,000 Sublimate Solution, left in place for seven to eight hours, he applies a blister over the trajectory of one of the radial, cubital, or median nerves, in whose territory there are trophic troubles. Then the blister is cut, and after washing with a solution of Boric Acid (4 per cent), a gauze dressing, soaked in a similar solution, is made. The next day, the blistering agent is applied again for seven to eight hours, and the dressing made in similar fashion. The third day, and the fourth day, again, the blistering is repeated, and in the pus leprosy bacilli begin to make their appearance. A vaseline dressing interferes with the success

We know the errors that have been committed in the differential diagnosis of nerve leprosy and syringomyelia, and Pitres and Sabrazès<sup>2</sup> insist on the value of a bacteriological examination. They made an incision of six centimètres along the radial border of the forearm in an anæsthetic region, parallel to a branch of the musculo-cutaneous nerve felt under the skin. The nerve was found, and a piece cut out.

Less certain and more variable diagnostic points are derived from the former residence of the patient, the age at onset, the existence of cephalic symptoms, the deviation of the spine, thickening of nerves, and the existence of large hypersemic macules with altered sensation

Danielssen' reports some results of his experience in the treatment of leprosy Unita's treatment with Ichthyol, Chrysarobin, and Salicylic Acid and Creasote causes nodules and infiltrations to disappear, whilst the general health improved. Unna's cured case died later on a leper. However, Dreckmann and others have been favourably impressed with this treatment.

The venerable Danielssen points out that numerous methods will cause disappearance of the eruptive features, such as energetic washings with Phenic Acid, tubbings with soft soap, the stimulating guigun and other oils. So also intercurrent febrile maladies clear them off for the time, but do not cure the leprosy. Danielssen has treated thirteen cases by the Unna-Dreckmann Method, but has not cured them Hydroxylamine (1) to 21 grammes in 20 per cent glycerine and 80 of alcohol, and 2 per cent, ointiments) p oved unsatisfactory.

Subcutmeous injections of Europhen gave no result. The action of Aristol is said to be identical with that of Iodide of Potassium.

RLEIRENCL'S—" Ann. de Derin. et de Syph," Jan 1894, 2" Nouvelle Icon de la Salpêtrière," 1893, 3" Archiv. f. Derm v. Syph," 1893.

Street str. — (Vol. 1804, p. 405) Tubercular leprosy will disappear under persistent irritation, e.g., from rubbing with Carbolic Lotions, Soft Soap, Irritating Oils, etc., but soon re-appear Carreau gave Chlorate of Potash in heroic doses (150 to 300 grains daily for three days), but symptoms of poisoning developed Europhen, 5% emulsion, locally, gave good results

#### LICHEN PLANUS.

T. Colcott Fox, M.B.

The subject of hydrotherapy in dermato-neuroses continues to be studied in France

E Vidal first made use of Temperate Douches of light percussion directed for three to six minutes upon the sides of the vertebral column, in order to combat the reflex excitability of the spinal cord, to which he attributed certain function if or trophic troubles of the skin This procedure was modified by Jacquet, and then by Brocq Now, Beni-Barde has also been successful with this treatment in lichen planus, two cases of chronic circumscribed neuro-dermitis, chronic lichen simplex of E. Vidal, prungo, and generalized eczema. The temperate douche varying from 33° to 38° C., according to the subject, and moderately percussive, agrees best with the majority of patients affected with dermato-neuroses. One a day is given in cases of

moderate intensity, two daily when the nervousness is very well marked, more frequently even, if needs be, if the exasperation becomes extreme.

Cold douches must be used with the greatest circumspection, otherwise more harm than good ensues.

REFERENCE —" Brocq's Letter, "Jouin. Cut. and Gen.-Urin. Dis.," Jan, 1891.

## LIYER (Cirrhosis of).

Synophic — (Vol. 1804, p. 406) B. Hippuric Acid, 25 grms., Lime Water, q.s. to neutralize, Simple Syrup, 500 grams., Syrup of Lemon, q.s., M., Sig.—4 to 6 dessert-poonfuls a day to combat congestion. Capaiba, 4 grms. daily as diuretic, Purgatives carefully employed. Iodice of Potas.ium, 2 to 4 grms. per day with Milk Diet. Calomel, 3 grm. doses thrice daily as diuretic, tog ther with a gargle of Potas um. Ch'o ate. Succus Taraxaci in large doses with Tinc.uie of Nux Vomica for hepatic congestion.

## LIVER (Surgery of).

A. W. Mavo Robson, F.R.C.S.

Cystic Degeneration of the Liver .- Dr John B. Roberts' 1eports a case of enormous enlargement of the liver in a woman aged fity six, due to the formation of cysts of various sizes in the hepatic substance. At the operation, the abdomen was opened over a prominent cost, the wall of which was then sutured to the edge of the abdomin d wound. Seven days later the cyst was opened, and through this some eight or ten smaller ones were also drained The patient died three weeks later, quite suddenly. At the post-morten the liver was found greatly enlarged, weighing 114 lbs., and riddled with cysts. No echinococcus hooklets could be detected microscopically, and the fluid contained albumen. Both kidneys were enlarged and cystic In last year's "Annual" we referred to a somewhat similar case in a child, the liver being enormously enlarged and filled with cysts, the fluid from which contained albumen, but no hooklets. Hepatotomy so far relieved that the child was removed to its home after a few weeks, but on enquiry at the address given the family had removed, so that the further history of the case remains in doubt

We operated six months ago in a case of liver disease, the nature of which must, we fear, remain doubtful, as the patient is now apparently well. The patient, a man of fifty, was admitted to the Infirmary with an enormous liver and gradual failure of health, without jaundice. Hep itotomy was performed, and several pints of pultaceous material of the consistence of thin putty were removed by means of a lithotomy scoop—in fact, such was the quantity that it seemed as if the whole of the interior of the liver had been cleared out, leaving a thin

shell of liver tissue; yet there must have been left sufficient hepatic tissue for the purposes of life, as the patient not only recovered from operation, but gradually regained strength and health

Under the microscope, the material looked like broken down liver substance. There was no history of syphilis.

Hydatids.—J. Ross,<sup>2</sup> in a paper read at the Rome Congress, gives an account of thirteen cases of hydatid disease of the liver

He divides them into three sets .-

- (1,) Those springing from the posterior, superior, or antero-superior aspect (eight cases).
  - (2,) From the inferior aspect (four cases).
  - (3,) Intrahepatic (one case)

Three cysts on the superior aspect, four on the inferior, and one intrahepatic cyst were operated upon by Volkmann's method

In two cases in which the cyst was situated on the superior aspect of the liver, the pleural cavity was opened, and the cyst evacuated by going through the diaphragm, they made rapid recoveries. Whenever a cyst was located on the convexity of the liver, nerve-pressure symptoms were present, and sometimes were the only discomfort complained of by the patient.

The author advocates Volkmann's method, since skilled assistance is not required

Di Win Gardner also recommends Volkmann's method, with rodoform gauze plugging where skilled assistance cannot be obtained, but where it can be advocates stitching the cyst to the parietal peritoneum and emptying it by thorough douching

J Israel' reports a case of extripation of a primary sarcoma of the liver in which the patient, aged fifteen years, died of numerous metastases three months after operation. The large tumour was removed by the cautery-knife, and hæmorrhage was arrested by pressure with gauze

He has operated on six cases of syphilitic tumour of liver, with two deaths.

He considers that a single operation, either with the extraperitoneal treatment of the liver wound, or with the use of the tampon, is best, and in this we feel sure he will be supported by the greater number of experienced surgeons

Etiology of Hepatic Abscess -On this subject somewhat contradictory views are expressed by different observers

Dr. S J Rennie<sup>4</sup> (A.M.S.) writes. "During the past eighteen months seven cases of hepatic abscess have come under my care, and in no single instance was there any history of dysentery, though the most careful

and searching inquiry was made in each case. I may say that my own experience, extending over nine years in the tropics, has led me to believe that hepatic abscess is in no way necessarily associated with, or the result of, previous dysentery."

363

Dr. Cayley, in his "Hygiene and Diseases of Warm Climates," says: "We seldom meet with cases of hepatitis or liver abscess in total abstainers, except the pyæmic form directly associated with dysentery"

Neil McLeod' holds that tropical liver abscess (and by this is meant cases in which the suppurative process is not the result of a general pyaemia, or connected with gall stones, hydatids, or operative procedure on the large bowel) is the result of dysentenc ulceration.

Drs. Patrick Manson and James Galloway' report a case of abscess of the liver, the pus from which contained living amœbæ, supposed to be amæbæ coli, in large numbers.

Dr. Manson remarks the following peculiarities of tropical liver abscess ---

- (1,) In a large proportion of cases the contents are not pus in the true sense of that word; they consist principally of blood, detritus of liver tissue, a mucoid material, and usually only a very small proportion of pus proper
- (2,) There is no well-defined abscess wall, nor extensive infiltration of leucocytes in the surrounding and still living tissues, i.e., there is no tissue reaction as from action of pyogenic micro-organisms.
  - (3,) The pyogenic bacteria are usually entirely absent

He then asks. Are we not justified in regarding the peculiar structure and contents, the absence of pyogenic bacteria, and, in many instances, the presence of amœbie, not only in the contents, but in the walls of liver abscess, as being in all probability correlated circumstances? He suggests that these amœbie are the cause of hepatic abscess, that preying on the liver tissues they give rise to the characteristic purilage, the more so as they are well known to exist in the bowel in dysentery.

That many abscesses of the liver are secondary to bowel trouble no one can doubt, nor can is be doubted that hepatic suppuration may occur as a primary affection as the result of one or other form of hepatitis, but the amœboid theory of causation is by no means proved yet, and requires elucidation

Resection —Tricome' reports a successful case of resection of the whole of the left lobe of the liver for a tumour which was afterwards found to be a tubular adenoma, having its origin in the bile ducts.

At the International Congress at Rome, Ceccherelli and Bianchi

described a new method of arresting hamorrhage from the liver. The portion of the liver that it is proposed to excise is circumscribed by two strips of whalebone, each perforated from end to end by several holes. A long needle, aimed with a double thread, is passed through the hole at one end of one strip of whalebone, through the liver structure, and then through the corresponding end hole of the other strip Other ligatures are passed through all the other holes in both strips, and through the intervening portions of liver. One of the ends of the first ligature is tied to the cut end on the opposite side, and then all the ends are closely tied together along the whole length of one strip of whalebone, and afterwards along the second strip. In this way the intervening liver tissue is closely constricted and gradually crushed, and the isolated portion may be ficely incised without dread of hæmorrhage

Ze ller, discussing wounds of the liver, remarks the very slight ten lency of hepatic hæmorrhage to spontaneous arrest. In these cases after laparotomy, suture of the liver, Pacquelin's cautery and the timpon are available. The blood pressure in the liver is very low, hence arrest of hæmorrhage can surely be obtained by the tampon.

Mr F. Treves reports a case of suppurative pylephlebitis following an attack of perityphlitis due to constipation and the consumption of indige tible food. Laparotomy was performed on the thirty-first day of illness. "The liver was remarkable, it was considerably and evenly It projected at once into the w und, and extended one and enlarged a-halt inches or more below the margins of the costal cartilages far as its suiface could be examined, no adhesions were discovered. It was normal in colour, and felt to the touch almost as soft as lung The loss of its normal firmness was very striking. All that part of the surface of the liver which was exposed by the operation was dotted over with minute yellow specks They were perfectly round, and were comp rable in size to the holes made in paper by the prick of an ordinary pin They were to be seen, but not felt." The patient's recovery was rapid, uninterrupted, and complete, though nothing beyond exploration was attempted.

Mr. Treves also reports a case of recovery from the plastic form of the disease after laparotomy.

It is difficult to say whether these cases recovered in spite of, or as the result of, treatment, as beyond the exploration nothing whatever was done. If cause and effect are argued for, they would serve as good illustrations of the curative effects of laparotomy per se, and would encourage one to advise exploration in some otherwise hopeless cases.

Hydatid of the Liver simulating Gall Stones .- Dr. R. Stewart re-

cords a case of this kind. A lady of thirty-eight had several attacks of paroxysmal pain in the region of the gall-bladder, accompanied by jaundice, between 1890 and November 19, 1892, when the abdomen was opened. A hard rounded swelling, about the size of a hen's egg, was found on the under surface of the right lobe of the liver, adherent to the gall-bladder. About half of it was embedded in liver tissue. The left lobe could be made out uniformly enlarged. No gall-stones were found on opening the gall blad ler, but on irrigation bile-stained daughter-cysts were washed out. As daughter cysts continued to escape, the hard cyst was opened on December 2, and its contents cleared out. No communication with the gall bladder could be discovered. The hydatid daughter-cysts caused the recurring attacks of colic, the pain being as severe as is that usually accompanying the passage of calculi Dr Stewart believes that in addition to the hard cyst undergoing calcareous degeneration, there was another cyst in the substance of the liver communicating with the hepatic duct. The patient entirely recovered.

Fixing a Displaced Liver—Richelot<sup>11</sup> relates the case of a woman, aged twenty eight, in whose right iliac fossa could be felt a painful floating tumour. The patient was seized from time to time with bilious von ting and fever, so that she had to cease all work. Believing it to be a case of typhlitis, the author opened the abdomen and laid bare the tumour, which was found to be the liver, fixed by adhesions to the iliac fossa. The adhesions having been broken up, the liver was pushed up as high as possible and fixed. The result was very favourable, the patient suffered no more inconvenience, and could walk about with ease

REFERENCES — "" Annals of Suig," Feb., 1894; "" Austral. Mcd Gazette," July 15, 1894; "Deat. Med. Woch.," Aug. 23, 1894, "Brit Med Jouin," Aug 25, 1894; 5 Ibid., March 31, 1894; 6 Ibid., March 31, 1894, "Rev de Chir.," May, 1894; 8 Deut Med Woch"; 9 "Lancet," Maich 17, 1894, 20 "Pract.," Jan, 1894, "Australasian Med. Gaz," vol. 11., pp. 302-303, 1893; "1" Med. Press and Circular," July, 1893, "Therap. Gaz.," Nov. 15, 1894; 2 "Australian Med Journ," Aug 20, 1894.

Weiss \* seems to have had unusual success in the treatment of a case of locomotor ataxia by the use of large doses of the Iodide of Potash. Doses of 8 grammes a day were given with an improvement in all the symptoms, and notwithstanding the fact that the patient took 500 grammes in one month no harm followed. The case was a well marked one in which the history of syphilis figured. There was much ataxia, crises, ancesthesia, and Argyll Robertson symptom, and all of

these disappeared after four months' treatment, with an increase in weight. The special symptoms were meanwhile treated, the unethral crises and detrusory weakness being improved by the transverse galvanization of the lumbar cord and the hypogastric region, such treatment lasting five weeks. Ergot and Strychnine were given in small doses at the same time.

Stark' reports an old case of tabes which was very much improved by large doses of iodide of potash, the patient taking as much as 12 grammes daily, well diluted, a quantity which was subsequently reduced.

Hansall<sup>3</sup> discusses the possibility of the early diagnosis of tabes by the eye symptoms, and lays stress upon the superiority of the perimeter over the ophthalmoscope for that purpose. The atrophy of the optic nerve is believed to be a much earlier symptom of the affection than is ordinarily supposed.

Buzzard,4 in comparing the ocular symptoms in disseminated sclerosis and tabes, is of the opinion that the atrophy and associated visual disorder is a far less serious condition than the former disease. He calls attention to its rapid progress in tabes, and describes the disc as "flat, dense and uniform, of a cold bluish-grey tint, suggesting the idea of its being painted in opaque oil colour, with a very few retinal vessels lying upon it, and a marked absence of any minute vascularity." He points out the fact that when atrophy of the optic nerve is of early occurrence in tabes, ataxia critici does not occur or is but feebly expressed. Out of fifteen private patients of tabe tic atrophy, only four presented characteristic ataxia, and in certainly three of these other symptoms of tabes, notably pains, had preceded the eye changes for several years.

Grasset 5 finds that the lightning crises of tabes are best relieved by the administration of 50 centigrammes of **Phenacetin** every half hour until 8 have been taken, but if the stomach rebels he gives **Phenocol** subcutaneously, or **Morphine** combined with **Atropia** 

REFFRENCES.—""Centialb fur die Gesammte Therapie," Heft 2, p. 65, 1894; Jonlukan, Dicodecom, 8, 11 and 12, p. 230; "Jouin of Nervous and Mental Dis," p. 294, vol. N. No. 4, 1893, 4"Brit Med Journ," Oct 7, 1893; 5"Jouin de Méd. de Paris," No. 48, 1893

Synopsis — (Vol. 1894, p. 409) Hypodermic injections of Phosphate of Soda, 3 cubic centimètres thrice daily of a solution of phosphate of soda, 2 grms, in 100 grms, of laurel water. Spermine hypodermically Frenkel's movement method.

# LUMGS (Diseases of).

Symopsis.—(Vol. 1894 p. 411) In cedema pulmonum stimulants are indicated, or subcutaneous Camphor injections B. Camph, grm 10, Ol Oliv., grm. 90. Sig — 1 to 4 m injections Digital 1 in small doses, eg,

I grm divided into 150 portions if the condition has developed slowly Acetate of Lead internally B Plumb Acet, grm 005, Sacchari, grm. 10, M Sig.—Ft pulv Dentur tales doses decem One powder hourly Vesicants to the chest As an aseptic inhalation B Essent Terebinth, grms 350, Less Lavender, grms 100, Iodoform, grms 10, Ether Sulph, grms, 20

### LUPUS ERYTHEMATOSUS.

T Colott Fox, M B

Bulkley, whose treatment by **Phosphorus** has already been noted in this "Annual," has written an elaborate paper to which we may refer. He says that considerable care is necessary in employing phosphorus internally, but it it is properly administered, and due precautions are exercised, it is perfectly sate. He has given it for months without haim. Only solutions and pills sometimes set up severe digestive and liver disturbance, and occasionally jaundice. He therefore prefers Ashburton Thompson's solution. Bulkley begins with git xv, thrice daily after meals. It must be given in water quickly added, and promptly swallowed. Commonly, the dose may be increased by 1 or 2 drops daily, until 30 are taken thrice daily. The dose is then increased more slowly, one drop every other day, until 40 or 45 are taken each time, and in rare cases, if it agrees, even a larger amount may be exhibited. He has seldom given 60 drops for a dose

Meanwhile, the patient is carefully watched, and the drug stopped, if the digestion shows signs of disturbance. If there is constipation and liver disturbance, he gives a pill of blue mass, colocynth and ipecacuanha, and later the phosphorus may be resumed. During the interval, full doses of nitric acid after each meal are useful, and in hyperæmic cases acetate of potash, with fluid extract of tumes.

Brocq- has a favourable experience of the treatment. He gave daily I to 4 telephonfuls of a mixture containing I part of phosphorated oil in 9 of cod-liver oil. Quinquaud abandoned the treatment in one case.

Chicken, of Nottingham, showed the Nottingham Med -Chir Society, on May 2, 1894, a case in an elderly woman which was almost completely cured by the nascent sulphui generated in the tissues. He painted on (1,) Sol. Potass. Permanganatis, then (2,) Hyposulphite of Sodium, and finally (3,) Dilute Hydrochloric Acid.

REFERENCES,--\*" Montreal Med. Jouin," Aug, 1893, 2"Soc., Franç. Derm et Syph," Nov 16, 1893

Synopsis — (Vol 1894, p 413) Phosphorus internally Thilanin Lupus of extremities is scraped and dressed with compresses of Bichloride Solution Sclerous lupus is treated with Thermo-cautery round the periphery, and then scraped Carbolic Acid as ointment or plaster (1 in 15 or 20) may succeed after failure of salicytic acid Alumnol Plaster.

20%, consecutively, powdering with Pure Alumnol Cinnamylic Acid injections, viz., i or 2 drops of B Ac Cinnamylic, Cocaine Hydrochlor, a grm; Sp Vin Rectif, 18 grms Compresses of 5% Iodoform Solution in G d-liver Oil. Free Excision and Gia'ting by Thiersch's method. Injection of Thiosinamine, 15% alcholic solution injected into the back

## LUPUS VULGARIS.

T Colott For, MB

Brooke gives an excellent analysis of an article by Schutz The first desideratum is a thorough-going and practical method of destroying, not only the visible, but also the invisible nodules in the skin. The choice of methods depends largely on the extent and position of Schutz recommends Excision and Sewing up the the diseased area Wound, where the lesion is recent, and the process would not cause too great a cosmetic disfigurement. Brooke thinks this recommendation too sweeping, as the sites in which this can be done to the best advantage are not common Then it is precisely in these recent cases that the best results (cure or reduction in extent) are obtained by absorption brought about by the persistent inunction of ointments, e.g., Oleate of Mercury, or the pure metal assisted by the keratolytic action of Salicylic Acid or Molline. Brooke has not had a favourable experience of Thiersch's method of grafting, and he agrees with Schutz that it is uncertain in its results, and too dependent for its success on either unknown or unpreventable factors, and in private practice it is not easy to get patients of their friends to submit to the loss of a second slice from another limb. Further, the cosmetic effects are doubtful, and the removal of disease by excision is uncertain

It may be interpolated here that in a discussion at Edinburgh several speakers insisted on the necessity of making a very wide excision, and Alexis Thompson mentioned the fact that when the graft was taken from the thigh, hairs may develop to an unsightly extent

For the great majority of cases we are driven back to the older methods of Mechanical Removal and Selective Caustics. Of these, burrowing through the nodules with toughened nitrate of silver points is obsolete, because it is tedious, painful, mostly inefficacious, and may lead to darkening of the scar by deposit of silver oxide. Toughened zinc chloride points may, however, be used.

The method of Veiel of Canstatt is highly recommended by Brooke Narcosis is desirable, as the process is painful. With a sharpened stick of Caustic Potash the whole of the lupus area is first rapidly ploughed, and dried with lint, to prevent too much erosive action. The wound is dressed with 10 per cent. Pyrogallol Ointment, kept in place as long as the patient can bear it, and then a  $2\frac{1}{2}$  per cent. Ointment is substituted till the wound is healed. This healing is slow, but

the scar is clean and soft. In superficial cases, it is necessary only to employ a strong pyrogallol plaster (Beiersdorf's or Turinsky's), and then substitute the weaker pyrogallol outment.

Schutz's own method consists in vigorously scraping the lupus surface under anaesthesia, and scarifying the surrounding edge over half to three quarters of an inch in width. After stopping the bleeding, zinc chloride (sat sol), with a little pure hydrochloric acid, is applied, and the pain combated by ice compresses. The wound cleans under boric acid wet diessings. Then thrice daily apply Pyrogallol Vaseline (1 in 4) The pain and the inflammation excited necessitate a recourse to the boric acid diessings again in a few days. Then the pyrogallol vaseline is reapplied, and again the boric acid, and once more the pyrogallol and the boric acid. Healing now rapidly ensues under the influence of iodoform powder and boric acid (Brooke uses zinc ointment, with 10 per cent. of carbolic acid ) The rationale of the process is the destruction, not only of the bulk of the lupus tissue, but the exposure and gradual sterilization of the spores which lie in the minute masses of the round and plasma cells around the vessels, and which are the causes of relapses. The actual cautery is condemned because it coagulates the tissues, and prevents the entrance of parasiticides. Hence chloude of zinc is used before the pyrogallol is applied.

The after treatment of recurrent nodules is essential, by means of boring out, or the cautery.

Different operators have each their favourite parasiticide application, after the bulk of the lupus has been removed by scraping or other means. Thus A. G. Miller prefers pure Carbolic Acid, and Joseph Bell a strong solution of Chromic Acid.

Bier's Method of treatment by causing passive congestion has been tried by A. G. Miller, who thinks it may prove a useful adjunct to other measures in tuberculous affections of the skin of the extremities.

Klevtzoff healed tuberculous ulcers by dressing them with a 1 in 500 aqueous solution of Blue Pyoktanin.

Treatment by Subcutaneous Injection of various substances is still carried out. Klebs, in a recent work, expounds his researches on the etiology of tuberculosis, and its treatment by his Tuberculosidin.

Nor have other workers yet discarded tuberculin. Kossel has published a series of cases treated by **Tuberculin** injections, combined with surgical measures. Liebreich is still treating cases with his **Gantharidate of Potash**.

Van Hoorn has obtained some fair results with Hebra's **Thiosinamin**, but in some cases there was no improvement. Other observers express their disappointment with this substance.

Landerer claims successes for Cinnamic Acid Emulsion, injected hypodermically into the veins, and supplemented by local applications of the acid dissolved in glycerine or alcohol Moreau, of Toulouse, again, has obtained a cure of lupus, tuberculous gumma, etc., with subcutaneous injections of a mixture of Guaiacol and Thymol, or Guaiacol and Aristol. The former is less painful. He uses the following solution, injecting 15 minims, increasing rapidly to 45 minims, twice a week:—

By Thymol 588 Guaiacol Sterilized Olive Oil 525 519

This treatment sometimes occasions alarming symptoms of pulmonary congestion. It should also be stated that in lupus he also uses the thermo-cautery.

Lastly, we must refer to the use of Thyroid Extract, as practised by Byrom Bramwell, and since by many others. There is no doubt, and the writer speaks from his own experience, that in some cases of lupus a great improvement follows the local reaction which is excited by the ingestion of this extract. Whether any cases have been absolutely cured is perhaps doubtful. All these substances just mentioned excite a local reaction in addition to more or less constitutional disturbance. How far this local action affects the bacilli and the specific tuberculous tissue, and how far only the surrounding simple congestion and inflammation, is uncertain. Probably, the improvement in appearance is mostly due to subsidence of all surrounding inflammation, and not due to any direct destruction of the specific bacillus and tuberculous tissue.

REFERENCES — "Schutz, "Archiv. f Deim. v Syph," Bd. xvii, Heft 1, 1894, and analysed by Brooke, "Med. Chron," April, 1894; Veiel, "Berlin. klin Woch," No 39, Norman Walker and discussion, "Edin. Med Journ," Aug, 1894; Leslie Roberts, "Liverp Med. Journ," Jan, 1894, Klebs, "Die Causale Behandlung der Tuberculose," 1894, Kossel, "Dermat Zeitssouft," Bd. 1, Heft 1, 1894; Liebreich, "Hufeland Soc of Berlin," May, 1894, Van Hooin, "Monats. f prakt Derm," June, 1894, Landeier, "Anweisung zur Behandlung der Tuberculose mit Zeinist sauie, Leipzig, 1893, Moreau, quoted in "La Sém Med," Byrom Bramwell, "Brit Med. Journ.," and "Brit. Journ Derm," 1894, Lake, Laryng. Soc, Lond., Klertzoff, "Vratch," No 30, 1893, p 839; Sympson, "Practitioner," Feb., 1894.

#### MALARIA.

Synopsis — (Vol 1894. p 417.) Methylene Blue may be associated with injection of Bichlorhydrate of Quinine Helianthus Annuus Tincture, so grass, daily in divided doses, or Alcoholic Extract, 1 to 6 grass daily.

Phenocol Sodium and Potassium Nitrates, 15 to 20 grs. of Sodium Nitrate for a hypodermic dose. Cirichonidine Sulphate, 15-gr doses and up to 18 or 22 grains

#### MANIACAL EXCITEMENT.

Sympsis — (Vol 1894, p 419) Hot Wet Pack. Hyperalimentation, and occasional doses of Hyoscyamine or Duboisine, if needed.

#### MEASLES.

J. Madison Taylor, M.D., Philadelphia.

Dr. Clement Dukes' tabulates the distinguishing characteristics between epidemic roscola or rose rash, and morbilli or measles, as follows.—

## EPIDEMIC ROSEOLA OR ROSE RASH.

- (r,) Premonitory Symptoms. In many instances none; no headache, no vomiting, no catarrh, no cough, but frequent sore throat. If the at tack be severe, some malaise, anorexia, and drowsiness will exist.
- (2,) Its season is spring and summer.
- (3.) I he incubation ferred is usually eighteen days, but with a range of nine to twenty one days
- (4,) The Eruption—In the measles type this appears as minute rosy-red dots, not patches. It shows itself first behind the ears, and on the scalp and face, especially on the oral circle, from these situations it extends to the neck and chest, and gradually covers the entire body. The minute dots become larger and gradually coalesce, forming patches, of the bat's wing pattern, indistinguishable from measles.
  - (5.) Additional Symptoms .-
- (a) Throat —The fauces look dry, with a dark motley red hue.
- (b) Eyes The conjunctivæ are pink-red and suffused.
- (c) Glands The lymphatic glands throughout the body are enlarged, tender, and hard like peas-- notably, the posterior cervical, the axillary, and the inguinal

#### MORBILLI OR MEASLES

- (1,) Premonitory Symptoms Usually considerable makine, headache, anorexia, vomiting, watery eyes, catarrh, and characteristic cough for about three days.
- (2,) Its season is spring and summer
- (3,) The incubation feriod has a range of seven to eighteen days from exposure. Rash appears on fourteenth day
- (4.) The eruftion appears on the fourth day from the commencement of the malaise and catarrh. It shows itself behind the ears in the first instance, then on the scalp and torehead, and gradually spreads all over the face, body, and limbs, forming crescentic blotches. The eruption is papular in character and brick-red in colour, and may gradually assume a blue-red tint, but it never assumes a bright rose red.
  - (5,) Additional Symptoms. --
- (a) Throat.—The fauces are red and swollen, but differ from the fauces of rose rash.
- (b) Eyes.—The conjunctive are very red, watery, with marked photophobia.
- (c) Glands.—Not usually affected. The posterior cervical rarely so, and then not markedly, but the bronchial glands are always enlarged.

- (d) Desquamation.—In the measles variety there may, perhaps, be a little branny desquamation, but frequently there is none
- (s) Kulneys.—Rarely affected, and then only with a transient trace of albumen
  - (f) Diarrhoea.-Never.
- (6,) Sensations of Illness. Even with a full eruption, as intense as in measles, the patient usually states that he does not feel ill, although there may be other indications to show that he is really ill
- (7,) Tongue Clean or slightly furred, never coated with a thick white fur, which peels on the fourth day
- (8,) Pulse --Normal or slightly increased in frequency, but always bearing a ratio to the temperature
- (9,) Temperature. Varying from normal to 103° or 104° F
- (10,) Course of Illness The symptoms, however severe, pass off in a lew days
- (11,) The Duration of Infectiveness I rom ten to fourteen days where efficient disinfection is in force
- (12,) Protection -- The attack affords no protection against measles
  - (13,) Sequelar Practically none
- (14.) Termination Usually complete recovery in a fortnight.

- (d) Desquamation.—There is a little branny shedding of the indermis, varying according to the intensity of the rash.
  - (e) Kidneys -Not affected.
  - (f) Diarrhaa. Very frequent.
- (6,) Sensations of Illness—I have been repeatedly informed by strong, as well as by delicate, boys that they have never felt so ill in any illness. They continually suffer from delirium and complete anorexia, and he quite prostrate
- (7.) Longue -Slightly furred, but not coated.
- (8,) Pulse Usually accelerated, and may be very feeble and dicrotic, but always bearing a ratio to the temperature
- (9,) Temperature Usually heightened from 101° to 104° F
- (10,) Course of Illness Convalescence more protracted, often considerable prostration
- (11,) The Duration of Infectiveness. From fourteen to twenty-one days, according to the severity of the illness, where efficient disinfection has been carried out
- (12,) Protection —The attack affords no protection against the scarlet fever or measles variety of rose rash
- (13) Sequelæ—Pneumonia, bronchitis, pleurisy, ophthalmia, otitis, etc
- (14,) \*Termination.—Usually complete recovery in a fortnight at the school age, but sometimes followed by a prolonged period of ill-health
- (15,) Treatment in both cases is very similar. The patient requires about five days in bed, followed by three days in-doors, then about six days in the fresh air, and, after complete disinfection, may safely mix with others.

It must be noted that abortive cases of roseola are frequent, and their occurrence difficult to detect.

There are also two other eruptions which have a close resemblance to that of epidemic roscola, the ore is roscola simpler, which arises in hot weather, after chill, or as the product of various indigestible articles of diet. It is readily distinguished, however, by the absence of enlargement of the lymphatic glands. The other eruption is that occasioned by handling caterfullars, which boys are very fond of keeping. He discussed this question fully in a paper in the "Lancet" in 1.81

He also mentions a medicinal eruption occasioned by copa ba, which Mr. Hutchinson called the morbillio sine catarrh.

REFERENCE .-- "Lancet," Mar. 31, 1894

### METRITIS.

The following treatment is advised: Absolute Rest, Laudanum Foment tions upon the stomach, frequent Hot Irrigations with emollient and slightly aromatic liquids. The following represents an excellent formula:—

B. Chloral	Alcohol	aa Jiij
Naphtl ol	Water	3vi1

A tablespionful of this mixture is added to a quart of hot water. After each injection there is placed in contact with the os a pledget of absorbent cotton soaked in the following mixture:—

B Iodoform	3j	
Chloral	5j Glycerine	3113

In case of very severe pain, **Blisters** applied to the abdo ninal surface give relief, or in milder cases these may be replaced by **Compresses** sprinkled with turpentine or alcohol and covered with oiled silk Scarification and leeches applied to the os are absolutely useless during the acute stage

REFERENCE.—"Therap. Gazette," June 19, 1894.

# METRORRHAGIA AND MENORRHAGIA

Synopsis — (Vol 1894, p 420.) Vaginal Tampon, preferably by Cotton Wads soaked in Carbolized Water, compressed flat and applied firmly to vaginal vault.

#### MIGRAINE.

Synopsis — (Vol 1894, p 421) B. Butyl chloral Hydrat, gr xv; Tinc Gelsem, m xxx, Tinct Cannabis Indicæ, m xv, Glyc Jiv, Aq ad Jiij, M Sig — part at once, and repeat in half hour B. Ext. Cannabis Ind, gr 1; Acid. Arseniosi, gr 10. Ferr. Redact, gr j, Ft. pil Sig — r t. d

and increased B Ext Cannabis Ind, gr 1; Pulv Digital, gr, 1/2, Ferri Lactit, gr ij, Ft pil j, t d post cib. B Ext Cannabis Ind, gr 1/4, Ext 4uc. Vom, gr 1/4; Ergotini, gr. j Ft pil j, t d p cib if brain is hyperemic. Massage of abdomen, with or without general massage

#### MOLLUSCUM CONTAGIOSUM.

T Colcott Fox, M B

The little tumours of molluscum contagiosum are easily removed by various methods, which are of service according to the site, size, number of growths, etc. Expression by the fingers is efficacious, especially if, as Crocker suggests, a little incision is first made, and the pressure be exercised at right angles to the incision. The Scoop or Curette is also useful, and Morrow, of New York, has devised a Falciform Curette, which he found admirably adapted for the removal of the numerous lesions in the generalized forms met with in adults. Certain pedunculated growths can be supped off. Electrolysis may be applied where the number is limited.

Other means are sometimes convenient, and the tumours wither away after being touched or punctured with pure Carbolic Acid, and then brushed with flexile collodion (Jamieson) or mercurial plaster (Cutler, Sherwell). Sometimes a second painting with the acid is necessary in about ten days. Klotz punctures the growths with a sharply pointed toothpick, saturated with a 50 per cent Chromic Acid solution. Jaya injects into the base of the tumours 1 or 2 drops of a 1 per cent, solution of Corrosive Sublimate, making sure that the fluid reaches the tumour itself. The growths atrophy and dry up without leaving scars. Stronger caustics, of course, may be used. If the growths are thoroughly expressed or removed, there is no reason for carrying out the older method of touching the base with nitrate of silver or other caustic.

We have now direct proof of the inoculability of M contagiosum, and it may be mentioned Allen accidentally inoculated himself on the hands whilst attending to a case.

Nobel has followed up Pick's successful inoculation, and produced two molluscum contagiosum tumours on the forearm by the intia epithelial inoculation of material taken from mollusca of the penis. They were distinguishable in two weeks, and in nine weeks were typical. Hebia suggests the name verrucose acanthoma for this disease.

REFERENCES — New York Dermat Soc., March 27, 1894, Nobel, quoted "Ann de Derm. et de Syph.," Feb. 1894, p. 230, Jaya, quoted "Ann de Derm et de Syph, Jan, 1894.

## MORPHINOMANIA.

gr doses for sleep Sulphonal Hydrate of Amylene, 20 to 30 drops by bowel is best hypnotic As sedatives the Hot Air Bath, Weak Cerebral Galvanization or Muscular Farad zation. Chloroform Water, Bicarbonate of Soda to check gastric aculty, or Fairchild's Pepsine Moderate I urkish Baths, Rational Cycling. Cocaine internally: B. Cocain. Muriat, 0.5; Acid Salicylat., 0.1, Aq dest, 1000 Sig.—0.05 for a dose, never exceeding o 5 daily.

## MYOMA (Uterine).

Wm. J. Smyly, M.D., F.R.C.P., J.

Panhysterectomy for Myoma.—At the meeting of the British Medical Association in Bristol (1894) I read a paper on total extirpation of the myomatous uterus. The chief problem in hysterectomy for myoma is still the best method of dealing with the stump I prefer its total removal At first I employed a mixed method, removing the fundus by abdominal section, and the cervix per vaginam; but latterly I have removed smaller tumours, not reaching higher than the umbilicus, per vaginam and larger tumours by abdominal section. These operations are performed as follows :-

Vaginal Hysterectomy by the method of M. Doyen, of Reims .- In addition to the ordinary preparation, the vagina is carefully asepticised and dilated with Gariel's air pessary The patient is placed at the edge of the operating table in the lithotomy position, her lower extremities being supported by assistants. The operator, sitting in front of the perineum with a third assistant on his left, seizes the cervix on both sides with bullet forceps and draws it downwards. circular incision is made around it with Landau's rectangular knife, opening, if possible, the posterior cul de sac; the bladder is separated from the front of the cervix, pushed upwards with the ureters, and protected from a uterus of small size, showing injury by a narrow retractor (Fig. 28) The longitudinal section (Doyen)



anterior wall of the cervix is next divided in the middle line as far as exposed, and the lips of the wound seized right and left with muzeux forceps. The assistant making traction with these, more of the anterior wall is exposed and the incision is prolonged upwards, two more forceps being applied as high as possible; more of the uterus is drawn down and divided, the first pair of muzeux forceps being taken off and applied higher up. The peritoneum is generally divided by the second or third cut of the scissors, and the opening having been enlarged transversely the retractor is pushed into the opening If the vagina be not very nairow and the uterus not more than double the normal size, its extraction is effected without difficulty and without the necessity of prolonging the incision very far upwards; but if the organ be greatly enlarged it will soon cease to come down, and the median incision cannot be prolonged upwards. Two lateral incisions are then made in the form of a V on either side of the median one, and the wedge of tissue included removed (Fig. 29). The incisions are prolonged upwards, and the in-

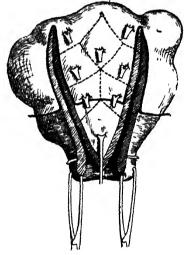


Fig. 29—Anterior aspect of a large fibromatous uterus, with V shaped incision and morcellement (Doyen)

termediate tissues, including any portions of the tumour, which present in the wound, cut away

If steady traction be maintained there is no hamoushage, and no har ostatic is required until the uterus is outside the vulva left broad ligament is then grasped by the corresponding hand and a clamp is applied vertically from above downwards, making suice that the entire ligament, and if possible the uterine appendages and nothing else are included within its giasp. Another clamp is applied to the base of the ligament for greater security, and both having been firmly closed the ligament is divided The right broad ligament having been similarly treated the uterus is removed The peritoneal edges having been

drawn downwards and carefully adjusted a sterilized tampon is introduced and the operation is completed. The clamps are removed in about forty hours. I have performed this operation five times, and am thoroughly satisfied with the results. It was practically bloodless, there was a remarkable absence of shock, the patients were out of bed within a fortnight, and there was of course no abdominal wound

Abdominal Hysterectomy by the method of Dr Martin, of Berlin.— The preparation is the same as in the former operation, but the air pessary is unnecessary. The night before the operation the vagina, which is carefully asepticised, is plugged with alembioth gauze

The abdomen having been opened by a sufficiently large incision, the uterus is drawn well forward, putting the pelvic floor upon the stretch. The infundibulo-pelvic ligaments are ligatured, and beneath them two or three ligatures placed upon the broad ligaments clamp having been placed upon the uterine side the ligaments are divided down to the cervix close to the vaginal vault. All bleeding vessels having been ligatured, an incision is carried across the posterior surface of the ceivix uniting the wounds in the broad ligaments. and the tissues separated down to the vagina, which is freely laid oper. Should any uncertainty be felt in doing this, a forceps may be passed up into the posterior forms to serve as a guide. The peritoneum is then stitched to the vaginal mucous membrane, knotting the ligatures on the pentoncal side. The cervix is next fixed laterally, taking care to insert sutures before dividing the structures and uniting mucous membrane to peritoneum. Then the vesico uterme fold of peritoneum is divided transversely, and the bladder separated with the finger. Lastly, the mucous membrane of the vagina is divided close to the cervix and stitched to the peritoneum, taking care to include a portion of the bladder wall in each suture. Martin inserts the sutures before dividing the vaginal insertion. The uterus having been removed and all hæmorthage controlled, the ligatures are twisted into a rope and drawn downwards through the vagina; the peritoneal surfaces are thus brought into contact and a few catgut sutures are reserted to close the peritoneal cavity below. The pelvis having been cleansed and the intestines replaced, the abdominal wound is closed and dressed in the usual way. The vaginal sutures are then cut short and the vagina lightly packed with aseptic gauze.

I have performed the operation five times, but unfortunately lost the first case.

MYOPIA. (See "Eyesight.")

## MYXCEDEMA.

Synopsis - (Vol 1894, p 429,) Administration of Thyroid Glands of sheep. Perchloride of Iron.

NERYOUS SYSTEM. Allan McLane Hamilton, M.D., New York
The Value of Electrical Reactions in Diagnosis and Progno is of
Nervous Disease.—C. L. Dana called attention to the importance of
observing the greatest care in estimating the results of electrical tests,
and emphasized the fact that the want of correspondence in the investigations of various persons was due to errors in manipulation,
which it was not always possible to avoid.

In the tests made by himself, he had employed an indifferent electrode, of about the size specified by Erb; this was to be tied down, not held by the hand, so that there were no variations in the amount of

pressure. For the active electrode he had employed a small pointed electrode, the surface of which measured one square centimètre. means of this one could get the muscular irritability at different parts of the muscle, could see whether the contractions were sluggish or not, and could also learn the diffusibility of the contraction, which was a form of reaction that had not been sufficiently noted trode with a large surface was employed the diffusible reaction was not brought out with any certainty. The small pointed electrode could also be shifted to the motor point of the nerve, and thus the nerve reaction be obtained. In some cases the strength of the current required was so great that the point of the electrode gave rise to too much pain; in such a case he employed the ordinary-sized electrode. The electrode was first placed on the body of the muscle and reaction obtained with a gradually increasing current, and then the same reaction with a gradually decreasing current These reactions were compared with those on the opposite side. and the operation repeated two or three times with a proper interval between to allow the muscle to rest

The three points that he had particularly investigated in connection with spinal lesions were: First, the relative irritability of the two poles; second, the character of the reactions—ze, whether they were sharp or sluggish, or sluggish and diffuse; and third, the course of the variations of the reactions in the different stages of the disease.

Influence of Infectious Processes on the Nervous System -At the third meeting of the Congress of American Physicians and Surgeons, a discussion upon this important subject formed a part of the proceedings of the American Neurological Association, the consensus of opinion being that the infectious diseases generally admitted as causes of nervous affections were tetanus. rabies, syphilis, tuberculosis, hysteria, lepra, gonorrhœa, typhoid fever, erysipelas, influenza, mumps, the acute exanthemata, the presence of pyogenic organisms or of the Diplococcus lanceolatus, malarial disease, and actinomycosis. The nervous troubles following acute infectious disease were not always due to the primary infec tion, but sometimes to a secondary infection, or they might be only an indirect result The more important diseases of the neryous system which had only been suspected of being of infectious origin were poliomyelitis, Landry's disease, certain forms of myositis, neuritis, and myelitis, some of the cerebral palsies of children, chorea. disseminated sclerosis, and other cerebro-spinal scleroses, amputation neuritis, and herpes zoster. Finally, there were various affections following in the wake of infectious processes, but hardly to be classed as indicating the action of a specing virus. Such were the constitutional neuroles and psychoses and the adynamic cerebral affections, the result of celema or of arterio-sclerosis, various forms of sclerosis of the spinal cord, to which the nervous system was always prone; and subacute forms of multiple neuritis of the ordinary type

The arguments were strong in favour of the infectious origin of the different forms of the acute myeloneuritis or poliomyositis, which appeared to be due to powerful poisons acting like bacterial Bacteria had been found in Landry's disease, and myelitis had been produced experimentally by infection with cultures Acute multiple neuritis might follow almost any one of the infectious processes The meningitis which followed the exanthemata was probably due to secondary infection. The specific organisms prone under favourable conditions to cause meningitis were often present in even the healthy pharynx. The instances of local bacterial action upon the nervous system were few, while, on the other hand, the nervous system was especially prone to suffer from toxic agents in the blood. Several of them had a strong tendency to attack the vaso-motor system, and by disturbing the circulation prevent that normal vascular dilatation so necessary for the protection of the body against the invasion of pathogenic organisms. In tetanus the irritability of the spinal cord was heightened, as in strychnine poisoning; in diphtheria, the cardiac centres were sometimes involved, though gross lesions might be absent; in influenza the tendency of the poison was towards the brain more than in the case of some of the analogous diseases.

Reference - "New York Med. Journ," March 24, 1894.

# NEURALGIA. Allan McLane Hamilton, M.D., New York.

Johnson presents a case of neuralgia of the great occipital nerve in which there were concurrent symptoms, such as unilateral sweating and excessive lachrymation, dyspnæa, and change of expression with pupillary differences, but no paralysis. It was believed that the cervical sympathetic was at fault, and an incision was made and the superior cervical ganglia freed from certain adhesions between it and the sheath of the internal carotid, the result being an immediate disappearance of the pain and a diminution of all the symptoms.

Eshner has used the  $\frac{1}{30}$  of a grain of Gelsemine thrice daily in neuralgia without any evil effects.

REFERENCE.—" New York Med. Journ," May 5, 1894.

Synopsis — (Vcl. 1894, p. 434) Aconitine, Morphine, and Atropine hypodermically, and perhaps Antipyrin; internally Quinine, Ant febrin and Exalgine, refrig ration with Chloromethyl Veratrine, Camphor and Menthol in ointments Antipyrin and Phenacetin for hemicrania of imperfect digestion. Opium alone or with Cocaine for smarting pain in neuroses of digestive tract Quinine and Salicylate of Sodium for rheumatic neuralgia: R Chloroform, 3vj, Sulphuric Ether, 3j, Sp Camphor, 3iij, Tinc. of Opium, 5jss; M. Sig—Soak a piece of flannel with the liniment and apply over the affected area

## NEURASTHENIA. Allan McLane Hamilton, M.D., New York.

Grasset, in a paper upon the treatment of neurasthenia, makes the following observations as to therapeusis:—

# (A,) In the Slight Form :-

- (1,) Eat as much nourishing food as possible, all that can be digested; no mental work; boddy exercise in the air without fatigue
- (2,) Every morning cold horizontal douche over the whole body, with the exception of the head (twenty to thirty seconds), dry fr crion, and then walk. If the douche is not possible, quick submersion in cold bath. Before dinner, massage of the whole body
- (3,) Apply the two following methods, changing so that twenty days' treatment are followed by ten days' rest each month
  - (a) B. Alcoholic Fat Kola 1002 | Syrup Aurantii 300 c m.
    Sig Fake with every meal 1 tablespoonful
    Or .—

B) Tinct Kola
Tinct Coca
Tinct Kola
Tinct Coca
Tinct Kola
Tinct Coca
Tinct Co

(b) R Take with each meal a powder of Ferr Redacti o ro And r tablespoonful of .—

B Aqua 300 00 | Acid Hydrochloric 10

- (4.) In Spring and Autumn, treatment for six weeks in Hydropathic Establishment
  - (B,) In the Serious Form -
- (1,) Patient must be removed from his surroundings, best into a Hydropathic Establishment under continual observation of the physician.
- (2,) Absolute mental and physical rest. Exercise in the open air to be directed according to the return of strength
- (3,) Methodical and passive massage of the whole body Cautious electrotherapy. Later, short cold immersions, followed by rest in bed, then short cold douches.

- (4,) Progressive over-nutrition, beginning with milk, then eggs, minced law meat, and, later, twice a day a teaspoonful of :-
  - B Sulphate of Strychnine o'5 | Aqua

1500

When patient becomes stronger give the internal medication pre scribed for the slight form

- (5,) When the patient is strong enough, short voyages. turbances in the digestion of neurasthenics are to be treated like dyspepsia in general.
  - (C.) Brown-Sequard's Ireatment :-
  - (1,) Suspend every other treatment
- (2,) Under complete asepsis a subcutaneous injection of a mixture of 2 cm of equal parts of Testicular Fluid and distilled water. Increase the dose every day 1 c.m until 5 to 6 c.m. are given daily.
- (3.) Continue for twenty days, rest ten, and then recommence after another twenty days (These two series will show whether or not the treatment is to be continued)
- (4,) If from any cause the subcutaneous injections become objectionable inject the fluid in the rectum (1 to 2 cm. testicular fluid and 4 to 5 The same directions for time as in the subcutaneous injections, unless there should be irritation in the bowels
  - (D,) Injections of Artificial Serum -

In cases of arterial tension (tachycardia, embryocardia) two to four times daily a subcutaneous injection of the following mixture:-0.5

B Sodium Phosph. Sulph

10 0 | Acid Carbol. 50 Aqua des (boiled) q. s ut f. 100 c m

Chlor. 250

Fleury gives the results of his treatment of twenty-one patients, the use of subcutaneous injections of artificial serum playing an important

The author has experienced excellent results by the following treat-The physical fatigue, loss of appetite, impotence and intellectual weakness disappear promptly upon subcutaneous injections of the concentrated artificial Serum, which has at least the same effect as testicular fluid. The neurasthenic dyspepsia is cured by reasonable diet, with abstinence from alcohol. By regulating the employment of his day, hour by hour, and by giving the patient rational occupation, especially in the forenoon, one will soon succeed in producing sleep Success in twenty-one cases ' seventeen cured, with at medication four greatly improved

Descum in an elaborate paper upon the use of the Rest Treatment in this condition, calls attention to the existence of permanent and terminal changes in some cases of neurasthenia which prevent any treatment from being more than moderately successful, and the most difficult cases to manage are those of the hereditary type.

REFERENCES — "Gaz Med. de Paris," 1893, No. 42; "The Therap. Gaz.," Dec. 15, 1893.

Synopsis — (Vol 1894, p 435) Injection of Gray Brain Matter of Sheep, diluted with water & Zinc Phosphide, gr ij; Zinc Bromide, gr, xx, Quinine Bromohydrate, gr xxx, Ext of Nux Vom., grs iij, M. Divide into thirty pills; 3 daily for gastric disturbances of neurasthenia

#### NEURITIS.

Aynopsis.—(Vol. 1894, p. 437.) Arsenic, Continuous Current, and Belladonna and Chloroform applied locally gave great relief in peripheral neuritis due to hysteria.

#### NOSE.

Synopsis - (Vol. 1894, p. 443) Acute nasal catarrh of infants at breast may be relieved by spraying with 5% Cocaine Solution just before child nurses, or application of Spray of Menthol, 20% in olive oil, or syringing with Camomile Infusion with a little Alum; introduction of tubes into nostrils In chronic form Gray Powder is useful, also spraying with Sodn Carb, gr xv; Sodn Biborat, gr. x, Sodn Chlorid, gr v, Aq. dest ad 31 In adults, treatment of chronic rhinitis must be by general measures and local applications, eg., Liquid Vaseline containing Terebene, gr x to 3j, Eucalyptol, gr xv to 3j, with Camphor, gr j to ij to 3j, sprayed in night and morning. To remove crusts forcible spraying of weak solution of Soda Bicarbonate and Borax in warm water followed by the oily solution Later a snutt may be used twice daily, e.g., Sodium Chloride, 511, Boracic Acid, 548, Ammonium Chloride, 588, Camphor, gr j Other solutions are Zinc Sulphate, gis ij, or Alum, gr iv to viij, Zinc Chloride, gr. J., Silver Nitrate, gr. 13 to vv., Sodium Benzoate, gr. xxx to 31, 1 ar Water insufflations containing Nitrate of Silver, Tannic Acid, Iodol, Sozoiodol, Sanguinaria, etc. For hypertrophic form Galvano-cautery or Snare, or in slight cases, Trichloracetic or Chromic Acids may be applied after using cocaine, and the application followed by daily cleansing with: B. Sod Bicarb, grs x, Sod Biborat., grs x, Tinc Benzoin Co, mx, Glyc, mxx, Aq ad 3ij This is followed by insufflation of a powder, eg, B. Ac Boracic, gr iij, Sod Chlorid, gr. 1, Bismuthi, Subcarb, gr 1, Morph Acet, gr 1, For atrophic form all crusts must be sprayed away with such a lotion as Dobell's or simple warm water with a little Bicarbonate of Soda or Sanitas added, and to restore function of the membrane a spray of 1% solution of Iodic-hydrarg, is useful, but hypodermic injection of Morphia is required to allay pain Faradic Current, Internal Massage In atrophic rhinitis watery astringent solutions, eg. Peroxide of Hydrogen, 10 to 20%, Mercuric Bichloride, 1 to 4000; Boric Acid, Potassium Permanganate and Carbolic Acid may be used. but by means of post nasal spray Mild astringents, 2 or 3 grs, to 3j of Silver, Copper, Zinc, Tannic Acid, or Iron may be used similarly. Stimulating disinfectants, e.g., Listerine, Thymol, Menthol, Eucalyptol, Oil of Wintergreen, etc., cleanse and comfort dry congested surfaces

#### OBESITY.

Synopsis — (Vol 1894, p 450) Every morning sponging with hot Eau de Cologne and Water, then 1 ry Rubbing and Massage, a tumblerful of purgative water, rigid diet, following each meal by a dessertspoonful of a solution of Potassium Iodide, 15 gims to 250 grms of water.

# **EDEMA** (Angio-neurotic). W. Ramsay Smith, M.B. (Eain.).

In the autumn number of "Brain," 1893, Drs. Ernest Wills and Dudley Cooper record particulars of five cases of angio-neurotic cedema observed by them. In all these cases localised, red, cedematous patches, variable in size, irregular in distribution, hot to the touch, but not tender, appeared in various parts of the body, lasted for a day or two, and then disappeared, leaving, as a rule, no trace behind them. In no case was the general temperature raised; in none of the cases was there any organic disease likely to produce the condition noted, but all the patients might correctly be classed as neurasthenic.

In discussing these cases, and similar cases recorded by other observers, the writers come to these conclusions regarding the etiology of the condition: That chief among predisposing causes are hysteria, hystero-epilepsy, neurasthenia, and the allied emotional states. Other observers add heredity as an important factor. As regards exciting causes, the writers give the first place to psychical disturbances, and enumerate as other causes. (1,) The onset of puberty; (2,) The climacteric, (3,) Gastric irritation; (4,) Exhaustive nervous drain during the time of adolescence

They state their view of the pathology of this form of angio-neurotic cedema thus "A local paralysis of the vaso-constrictors, or a reflex stimulation of the vaso-dilators, causes a dilatation of the vessels of the subcutaneous tissues, which is followed by retardation and stasis of the blood. An exudation, usually serous, sometimes sanguineous, then occurs, producing an cedema, but the cedema is not sufficiently acute or sufficiently localised to cause any lifting up of the epidermis as a whole, and the resulting condition may be fitly termed an abortive urticaria." The writers note that other authors, Quincke, Dinkelacker, Rapin, Minich, Osler, and Strumpell have recognized the association of angio-neurotic cedema with true urticaria.

Dr Gerald Fitzgerald\* has recorded and discussed three cases of another manifestation of angio-neurosis under the title of Acute Circumscribed Œdema. There are two varieties of this:—

(1,) The cutaneous form in which the local changes may be divided into three stages: "First, a stage of redness and heat of the skin, accompanied by a sensation generally described as tingling; second, a stage of swelling, when the redness is succeeded by pallor, except

around the margins where it remains; third, a stage during which the serum escapes under the cuticle, raising it up into bulke. These stages, however, may not all occur. The first only may develop, or the first and second, and the complete picture is seldom seen except where a very large area happens to be involved."

(2,) The subcutaneous form, in which the skin itself is affected only in so far as it may be made pale by the mechanical pressure of the hard, tense, and possibly painful tumour underneath.

Dr. Fitzgerald notes that while the local symptoms generally disappear in at most a few days, the disease may be exceedingly chronic; one crop of lesions appearing after another; that there may be considerable constitutional disturbance during an attack, the pulse being quickened and the temperature raised, also that this disease is often associated with urticaria, and accompanied by such well-marked gastro-intestinal symptoms that he feels inclined to raise the question "whether they are not really part and parcel of the disease, whether the mucous membrane of the stomach and intestine is not subject to an affection more or less resembling that of the skin." One of his cases had a history of asthma, another showed well the phenomenon of tache ménangitique.

In the "Practitioner"3 for April, 1894, unaware of the work done by Drs Einest Wills and Dudley Cooper, and unintentionally adopting the same title for my communication, I recorded in detail a typical case of a very distinct general disease of the vaso-motor system. This case came under my observation in 1887, and a study of repeated attacks of the disease in that patient and in other patients4 seen since then have confirmed the view I formulated at the time regarding the nature of the disease The chief features of an attack are these. The whole body becomes swollen, red, hot to the touch, the patient complains of great heat, fulness, tingling, and itching in parts, and sometimes intense pain in the palms of the hands and the soles of the feet: there is great prostration, and there may be sickness and vomiting; the general temperature is considerably raised, and after the acute symptoms have subsided, the whole body desquamates fieely Briefly, the most constant and characteristic symptoms are high temperature, certain subjective symptoms, hyperæmia of the skin, and subsequent desquamation. The patients showed well marked idiosyncrasies towards certain drugs, eg, chloroform. The exciting causes appeared to be sometimes local, eg, cold in the ear, carious teeth, uterine congestion, sometimes more general, e.g., mental excitement and bodily exhaustion.

The general features presented by a typical attack seemed to be but.

an extension and aggravation of the local affection I had observed. This local affection is apparently the same as that described by Drs Ernest Wills and Dudley Cooper and others, only in some of my cases pain has been a notable feature, and most of my patients have shown no tendency whatever to hysteria, alcoholism, or gastric irritation, and little, if any, to neurasthenia. I have found localised angio-neurotic cedema causally connected with migraine, astigmatism, defective teeth, pharyngeal adenoids, and other conditions

As regards the *pathology* of the definite form of general angioneurotic addena I have described, I have little hesitation in ascribing the condition to a lack of energy in the vaso-constrictor centres in the medulla oblongata and cord. I find no evidence to warrant me to state from my own cases that the condition is an index of an unstable nervous system generally.

TREATMENT.—The treatment of angio-neurotic ædema resolves itself naturally into. (1,) The removal of all possible peripheral sources of irritation, and (2,) The improvement of the general health. Dr Fitzgerald characterizes the treatment of acute circumscribed ædema as purely empirical and unsatisfactory, apart from treatment directed to any obvious cause. In the general treatment, both of local and general angio-neurotic ædema, after the urgent symptoms have been relieved, I rely mainly on Arsenic, Ergot, and Bromide of Iron. The formula I employ very extensively for these and many allied conditions is the following:—

Fiat pilula Tales 48 Sig -One to be taken three times a day after food.

The pill of the bromide of iron is after the formula of the pill of the iodide of iron (BP), and the use of it in this fashion is due to a suggestion by Dr G A. Gibson some years ago regarding the treatment of a case of Graves's disease. I have found the results of a course of this treatment in most cases of angio-neurotic cedema eminently satisfactory

References—"Brain," Autumn, 1893, with a very full list of references, 2" Edinburgh Hospital Reports," vol i., p. 179, 1893; 3" Practitioner," April, 1894, 4" Lancet," July 14, p 76, 1894.

### ORCHITIS.

Synopsis.—(Vol 1894, p 453) Pulverisations of Phenic Acid, 2%, for quarter of an hour, twice daily.

### ORTHOPÆDICS.

John Ridlon, MD, Chilago. Robert Jones, FRCS, E

Recumbency in the treatment of Pott's Disease—Dr John C. Schapps' describes a modification of the Steel's stretcher bed with a new contrivance for adjusting pressure from kyphosis without the necessity of moving the child, and with an attachment for transferring the bed into a wheeled carriage.

In discussing the intentions for the use of this cot he says, Recumbency is indicated as routine treatment as soon as the diagnosis of spondylitis has been made, or even when it is probable; for the intrinsic tendency of the disease to progress is in each new case such an unknown quantity that no time should be expended during the developmental stage by experimenting with less thorough methods of treatment. In case of a patient wearing a support, progressive deformity or the persistence of pressure soies should be regarded as demanding recumbency. It is, of course, presumed that the splint had been skilfully designed and applied, that pressure had been diffused over as much surface as the case will permit, and that by cleanliness and dryness every care had been taken to protect the skin. While no method can claim to prevent in all cases an increase of deformity, such increase should in no case be regarded as inevitable until it is ascertained what can be done by the careful use of mechanical force applied to the passive horizontal spine Marked psoas rigidity denotes a considerable degree of activity of the disease, and probably abscess. When the patient walks or stands with the thigh flexed, the forward inclination of the trunk causes the weight of the mass above to act at a great mechanical advantage in the production of deformity Support is thus made very difficult and uncertain, and femoral movement everts, through the shortened muscle, a direct injury upon the diseased spine These cases should be treated in the horizontal posture, and the limb elevated upon an inclined plane sufficiently to relax the psoas muscle. By means of adhesive plaster a weight is attached to the limb and traction made as in hip disease As the muscle relaxes the plane is to be lowered Pott's paralysis, even a slight dragging with exaggerated reflex, should be regarded as an unequivocal indication for recumbency with all possible traction Many very brilliant results, even when there were present incontinence of urine and fæces and large bed sores, have thus been obtained Patients with abscess should generally be treated in the horizontal position; always if the abscess is new or increasing. Night cries, a grunting respiration, peripheral pain. referable to the spinal nerves coming from the seat of the disease.

an inclination of the patient to lean on chairs, etc. indicate an insufficient support and the need of recumbency.

Knee Joint Disease.—I)r. A M. Phelps 2 states the following propositions in reference to the etiology of the deformities occurring in this affection:—

- (1,) In diseases of the condyles of the femur or the head of the tibia the leg always assumes a flexed position to a greater or less extent.
- (2,) After the limb flexes the foot rotates outward, and rotation increases with flexion
  - (3,) In diseases confined to the patella the limb never flexes
- (4,) In diseases of the synovial sac, or fibrous capsule, anteriorly, unattended with disease of the condyles, cartilage, lateral or crucial ligaments, the limb remains straight.

Three experiments were made, lying, standing with leg flexed, and standing against a bar, to determine the relative strength of the flexor and extensor groups, and the following conclusions were reached —

Typical deformities are produced by changes of leverage and action of muscles due to (1,) A voluntary effort to relieve pressure and pain; (2,) Involuntary spasm and contraction of muscles, which increases the deformity by advantage of leverage due to flexion; (3,) Nervous irritation of groups of muscles due to local lesion in or about the joint; (4,) Exceptional deformities are produced by pathological destruction of bone, or soft parts; (5,) Outward rotation of the leg is produced by spasmodic contraction of the biceps after flexion has taken place. Flexion allows lateral and rotary motion at the joint

Distraction in the Treatment of Hip Disease.—Bradford and Lovett's report eighteen experiments of traction with ten and twenty pounds upon the hips of seven healthy children from six to sixteen years of age. In ten instances there resulted lengthening from \( \frac{1}{2} \) to \( \frac{1}{2} \) inch, in five there was no change; and in three there was an actual shortening of \( \frac{1}{2} \) inch. Twenty-four like experiments were made with a like traction force upon the diseased hip joints of twelve patients from four and a half to sixteen years of age. In nineteen instances there resulted a lengthening from \( \frac{1}{2} \) to \( \frac{3}{2} \) inch, and in five instances there was no change.

They further report in detail twelve cases of hip-disease treated by traction for a longer or shorter period; no evidence, however, being adduced that the traction in these cases at any time distracted the joints. They conclude that at a certain stage in hip disease traction

force is desirable; that the amount of traction should be in proportion to the amount of muscular spasm, and continued as long as the spasm persists; that it is also demonstrable that an efficient traction force distracts, and it is manifest that distraction, or the separation of one inflamed bone from an adjacent inflamed bony surface is desirable, that in this way every chance is given to promote cure and cicatrization of the previously inflamed bone; that it should always be remembered that in treating hip disease at a certain stage the object should not be simply rest, or fixation, or protection from jar, but actual distraction, and that traction short of this is inefficient.

The latter statement is a somewhat startling one, masmuch as neither the authors, nor anyone in so far as we know, have treated any case by distraction for even so long a period as one day. The terms must not be confused, and the excellent results in the cases reported to have been treated by traction must not be credited to distraction.

Final Results in Tubercular Ostitis of the Knee —Di V P Gibney4 (New York) has records of four hundred and ninety-nine cases of tubercular ostitis of the knee, observed between the years 1868 and 1887. Three hundred of these cases have been traced to the present time, and final notes of their condition constitute the basis of their report

Set.—I'we hundred and twenty-three females, two hundred and seventy-six males

Side --In two hundred and thirty-nine cases the right knee was affected; in two hundred and thirty-five it was the left, in twenty-five the side is unrecorded

Age when Disease developed —In one hundred and ninety-seven out of three hundred and eighty-seven cases, or nearly 51 per cent, the disease developed before the age of five years; in one hundred and forty-two, or 36 per cent, between the ages of five and ten. In thirty-nine cases, or about 10 per cent, between the ages of ten and twenty years; in nine cases, about 2 per cent, after the twentieth year had been passed.

Involvement of other Joints.-- Of four hundred and forty-nine cases there were only sixteen, or 3 per cent, in which other joints or bones were involved. Of the sixteen, eight had spondylitis, two ostitis of the hip; one ostitis of the ankle; one disease at the elbow; one disease of the wrist and shoulder; two affections of the other knee, and in one the other knee and elbow and a shoulder were also involved.

Abscesses —Of three hundred cases, one hundred and forty (46 per cent.) had abscesses.

Mortality.—Of three hundred cases forty have died, six of tubercular meningitis; fourteen of exhaustion after prolonged suppuration; three from phthisis; two from dysentery; two from amyloid degeneration; twelve from intercurrent affections not connected with the disease; and one from shock following excision. Assuming that twenty-two of these deaths are attributable to the disease, the mortality is  $7\frac{1}{3}$  per cent.

TREATMENT.—Three forms of treatment have been in use: (1,) The purely expectant, involving treatment of symptoms, relief of exacerbations, irregular use of apparatus, or frequent changes of apparatus, (2,) The fixation treatment, involving the continuous use of apparatus, partially or completely immobilizing the joint, including also various forms of extension apparatus, (3,) The protective, meaning thereby immobilization of the joint until all acute signs have subsided and convalescence is assured, and the use of apparatus efficient to prevent concussion, or jar, or tremor of any kind. The apparatus chiefly used by the reporter for this purpose has been the "Thomas" knee splint.

Although it is impossible to draw a sharp line of division between these groups, still the reporter thinks the distinctions may be sufficiently drawn to admit generalizations. His conclusions are as follows.—

Expectant Plan—Number of cases sixty; abscesses twenty-three (38 per cent.) Of these twenty-three abscess cases, fourteen recovered with motion in the joint; nine were pretty firmly ankylosed. Of the thirty-seven non-suppurating cases, thirty recovered with motion, seven were ankylosed. In all forty-four (60 per cent.) recovered with motion.

Fixation Plan—Number of cases one hundred and forty-five; abscesses sixty-three (43 per cent) Of these sixty-three abscess cases, forty-three recovered with motion, twenty became ankylosed. Of the eighty-two non-suppurating cases, seventy had motion, twelve became ankylosed In all one hundred and thirteen (77 per cent) recovered with motion.

Protective Plan — Number of cases thirty-seven; abscesses nineteen (about 50 per cent.) Most of these, however, had abscesses before the treatment was begun. Of these nineteen abscess cases, sixteen recovered with motion, three were ankylosed. Of the eighteen non-suppurative cases all recovered with motion. In all, thirty-four (95 per cent) recovered with motion

Amount of motion preserved.—In sixteen of the cases in which abscesses occurred, motion over an arc of more than 90° was

preserved. In the non-suppurating cases, twenty-five could be voluntarily moved over an arc of 90°.

Relapses have been infrequent—Of the abscess cases, only four relapsed during periods varying from seven to twenty years. Among the non-abscess cases six relapsed.

Need of Continued Support — Fourteen (413 per cent) of the abscess cases and twenty two (7 per cent.) of the non-abscess cases continue to wear some kind of a support; that is, 12 per cent of the entire three hundred cases seen

Deformity—Out of two hundred cases, in two there was complete luxation of the tibia, in one hundred and fifty sub-luxation, and in forty-eight no sub-luxation. Out of two hundred and twenty-seven cases, seventy-one could extend their limbs to an angle between 175° and 180°, one hundred and forty-one to an angle not less than 165°; and fifteen got well with deformity at an angle under 135°. The protective treatment gave the largest percentage of good results, so far as position is concerned, the fixation next, and the expectant the smallest percentage.

Epiphyseal Lengthening.—Of one hundred and sixteen cases measured, in six there was a lengthening of one inch, in fifteen three quarters of an inch, in thirty-four half an inch; in seventeen a quarter of an inch. That is to say, there was a relative increase of length of the femur in 62 per cent of the cases

Existions -Fourteen were subjected to excision. Three of these recovered with an angle of 160° or less, six at 170°, and three at 180° (perfectly straight). In two the deformity is not known. In one there is a half inch shortening, in one, one inch, in two, two inches, in one, two and a half inches, in one, three inches; and in one, three and a half inches, in two, four inches, in one, eight inches; and in four the result is not known.

The author believes that the teaching of his experience is against excision of the knee joint

REFERENCES—" New York Med Journ," Oct 21, 1893, "Med Record," Aug 4, 1894, 3" New York Med Journ," Aug 4, 1894, 4" American Journal of Medical Sciences," Oct., 1893

#### OSTEOMALACIA.

Seeligmann treated a severe case of osteomalacia by Porro's Operation, the stump of the uterus was dealt with extraperitoneally. The patient made an uninterrupted recovery. While the bones were still soft extension was applied. This was begun six days after the operation and continued for eight weeks. The patient was placed upon a water-bed and counter-traction applied from above. Weights

were gradually increased until ten pounds were used. As a result of this pain soon disappeared, the body became seven inches longer, and the configuration of the pelvis was favourably affected. The kyphoscoliosis dextrans disappeared. Thus after seven years of bed-ridden life, with the most severe pains and deformities, the patient regained the power of walking, and at the time of reporting was capable of performing her household duties.

REFFRENCE -- "American Journal of Obstet.," April, 1894. Symptos -- (Vol. 1894, p. 454.) Phosphorus.

#### OVARITIS.

Symptons—(Vol 1894, p 454) Rest in bed, and for constipation a teaspoonful of the following at bedtime in a glass of water: R Soda Sulphate, Jiv. Sulphur, J. Sugar, Jv. Ess. of Peppermint, q.s. The abdomen is rubbed with an ointment of Ichthyol and Lanoline, equal parts. Vaginal injections of Hot Water. Scarification of the os.

#### PACHYDERMIA LARYNGIS.

W. Milligan, M.D.

The earliest description of pachydermia laryngis was published by Huwermann in 1881. In 1887, Virchow also published an elaborate account of the affection, since which time many papers have appeared upon the subject. In the normal laryns, the mucous membrane is for the greater part of its extent, covered by a layer of columnar stratified epithelial cells, but over portions of the epiglottis, the interarytenoid commissure, the true vocal cords and the superior surface of the ventricular bands, the lining membrane is composed of stratified pavement cells

The microscopical changes found in cases of pachydermia consist in marked thickening of the epithelial covering, in multiplication of the papille, in enlargement of and increase in the number of the blood vessels, and of increase in their lumen. Pachydermic changes may take place either in the interarytenoid commissure or in the mucous membiane covering the true vocal cords, or it may exist in a generally diffuse form within the larynx The posterior extremities of the true vocal cords are favourite sites for the development of such changes. In this position symmetrical swellings of an elongated oval shape, and generally with a slightly depressed centre, are frequently seen. According to Virchow, the small depression in the centre of the pachydeimic swelling is due to the more intimate adherence of the mucous membrane to the underlying cartilage, according to Fraenkel,2 however, to the pressure which one swelling exercises upon that of the opposite side. Chiaii describes as the most frequent form a thickening and loosening of the epithelium of the interarytenoid fold and true vocal cords This idiobathic form of pachydermia must be carefully distinguished from those secondary or accessory pachydermic changes so frequently found accompanying syphilitic, tubercular, malignant, or perichondrial affections of the larynx.

Fig. A, Plate XVII, represents a case of pachydermia of the interarytenoid commissure, and shows the marked thickening which takes place in the epithelial covering of the part

Fig. B represents the tumefaction of the mucous membrane so frequently found in cases of syphilitic laryngitis Such conditions must, of course, be carefully differentiated.

Laryngeal pachydermia is most frequently found amongst males, and especially amongst those addicted to the abuse of tobacco and alcohol. In eleven cases recorded by Meyer<sup>3</sup> the patients were males between the ages of thirty-five and forty. In seventeen cases recorded by Krieg the affection occurred sixteen times amongst males, of whom thirteen were given to the abuse of alcohol. MacBride<sup>4</sup> has recorded two cases occurring in females aged respectively seventy-two and forty-eight.

Fig. C represents the larynx of a girl, aged twenty-one, who was recently under the writer's care. Her principal symptom consisted in a varying degree of hoarseness, especially in the early morning No pain had at any time been experienced, but there was a frequent sensation as if the larynx was about to close. In addition to the pachydermic changes which had taken place, a considerable degree of laryngitis sicca existed. Such laryngeal changes are, however, rarely seen under the age of thirty, usually occurring in patients whose ages range from thirty-five to forty-five years.

The condition of pachydermia is legarded by most laryngologists as being of a purely benign nature. Klebs, however, takes the view that it is the frequent forerunner of laryngeal carcinoma. The two processes are, however, clinically and histologically distinct. In malignant disease there is true epithelial proliferation, whereas in pachydermia there is no true proliferation, but an hypertrophy of the pavement epithelium. It must be be borne in mind, however, that a pachydermatous process may be grafted upon a malignant basis. The symptoms of idiopathic pachydermia are few. There is, as a rule, considerable aphonia, but this will, of course, depend upon the power of coaptation of the vocal cords during phonation. Pain upon swallowing is an occasional symptom, as also is a certain amount of dyspnœa, especially upon exertion.

The appearances presented upon laryngoscopic examination will vary according to the exact portion of the larynx which is affected Where the condition is generalised, the mucous membrane will be

### PLATE XVII.



Ing A



Fig B



Fig. C

found to be thickened and chronically congested. Where the interary-tenoid fold is mainly affected, the nucous membrane will be found thickened, swollen, and corrugated during phonation. In those cases where the posterior extremities of the true vocal cords are mainly involved, symmetrical oval swellings of an elongated shape, red or pinkish red in coloui, and one or both depressed about the centre, will be seen. In cases where this small depression is unilateral, it will usually be found upon the left side. In eight cases, however, recorded by Kausch,7 the depression in the centre of the swelling was found five times upon the right side, and three times upon the left side.

TREATMENT -The treatment of pachydermia laryngis is always difficult. Where patients have indulged too freely in the use of tobacco and alcohol, abstention from these articles must be enjoined. Rest to the larynx is necessary The internal administration of Iodide of Potassium in small doses is strongly recommended by some authorities. Where the changes are mainly confined to the interarytenoid fold and the vocal cords, the best local applications will be found to be dilute solutions of Lactic Acid or Iodine. Where nodules of considerable size have formed, removal by means of cutting forceps may be adopted, followed by topical applications. In the treatment of the typical form of pachydermia as it affects the vocal cords, Chiari<sup>8</sup> strongly recommends Electrolysis, a current of from 10 to 12 milliampères being used for from three to five minutes at a time, as employed by Moll, of Arnheim. Scheinmann, claims to have had good results from larvngeal applications of common Salt Water or dilute Acetic Acid, either by spray or by injection. He also recommends the inhalation of steam during prolonged periods. Tissier 10 recommends the removal of the hypertrophied epithelial masses by specially constructed forcers, whilst Michelson speaks favourably of the employment of Leiter's Cold Coil placed over the larvnx

REFERENCES — "Berlin. klin. Woch," 1887, p. 585, "Deut Med. Woch," 1889, p. 30; "Ibid., 1890, p. 928; 4" Edin. Med. Journ.," April, 1893, p. 911, 5" Journ. of Laryngol," etc., Aug. 1893, p. 370; "Deut Med. Woch.," 1890, p. 537; "Munchener Med. Woch," 1892, p. 515; "Journ. of Laryngol," May, 1894; "Berlin klin Woch," 1891, p. 1097; "Annal. des Maladies de l'Oreille," July, 1891

### PANCREAS (Surgery of). A. W. Mayo Robson, F.R C.S.

Numer' points out that the good results obtained by establishing a fistula between the dilated bile-duct and the small intestine, suggest the possibility of dealing successfully with obstruction and dilatation of the pancreatic duct by an analogous procedure. The chief difficulty

at present is the impossibility of diagnosing with certainty obstructive dilatation of the duct. In the formation of such a fistula he considers the use of Murphy's button would be indicated. It is also suggested that it might be found possible to take advantage of the anatomical proximity of the duodenum and pancreas and to drain pancreatic cysts into that bowel.

Korte has had under his observation four cases of suppuration and necrosis of the pancreas, and one case which did not go on to suppura-Two of the cases operated on recovered, two died; the first case was diagnosed in the course of treatment, the succeeding ones were diagnosed. The patients were adults, aged from twenty-two to forty-eight years, three women, two men. In one case there was almost complete necrosis of the gland, in two, partial necrosis, with suppuration; in one, suppuration. I wo of the patients were corpulent The symptoms observed coincided with those usually described They are, sudden severe illness usually in a patient seemingly in good health, or after slight digestive derangement, vomiting, pain in the abdomen extending from the epigastrium, great prostration, usually constination, abdominal distension, and sense of pressure. The acute stage may very easily be mistaken for some other affection—gastro duodenitis, poisoning, biliary colic, peritonitis, or intestinal occlusion (six cases have been subjected to operation). Sometimes the symptonis subside in a few days, then in one to three weeks recur. Death may occur in the acute stage from collapse (usually in the hæmorthagic form), or the case becomes sub-acute or chronic, and the patient slowly sinks from fever, diarrhoea, discharge of pus per anum some cases there is jaundice and bronzing of the skin were recorded. Chian - in which recovery resulted after the necrosed nancieas was passed per anum. In the sub-acute stage a symptom can be observed which is mentioned in the literature, and which was present in all the author's cases—a swelling in the epigastrium between the stomach and colon, extending to the left, and in some cases to be followed to the left lumbar region At times the pus in and about the pancreas escapes into the buisa omentalis, where it may form an encapsuled abscess, or it may burrow behind the pentoneum. mortem observations and injection of colouring matter into the pancieus show that pus may pass in the following directions (1,) Distension and rupture into the bursa omentalis; (2,) Burrow down to the left side behind the descending colon; (3,) In a few cases to the right, (4.) Along the spinal column down between the layers of the mesocolon or mesentery.

The diagnosis is based on the characteristic commencement of the

affection, followed by the appearance of the epigastric tumour or swelling in the left lumbar region. Purulent escape into the bursa omentalis may occur in other affections, and this lumbar swelling must be carefully distinguished from a perinephritic abscess. Exploratory puncture is not without danger in the first form, and should only be made immediately before operation. In retro-peritoneal extension it is advisable. The pus is thick and contains a large amount of fat, at times, tallow-like masses of fat, and necrosed shreds, usually fine, fattily degenerated pus corpuscles. The treatment is settled by the diagnosis in abscess in the bursa omentalis, laparotomy, suture of the walls, diamage, a counter opening to be made if possible, in the retro-peritoneal form, incision in the lumbar region and freeing of the posterior peritoneal wall till the abscess is reached.

M1. W. H Brown? records a case of traumatic cyst of the pancreas. The patient, a youth aged seventeen years, was, in Maich 1893, crushed between the buffers of a locomotive and a truck. Shortly afterwards he was tapped on the left side below the umbilicus and seventy ounces of blood-stained fluid removed, six weeks later the paracentesis was again performed and sixty ounces of fluid withdrawn Improvement followed until June 27th, when he fell from a horizontal bar and at once felt very ill. His symptoms were now severe intermittent epigastric pain, swollen, tense and tender abdomen, and constipation.

On June 28th abdominal section was performed and about five pints of bloody serum evacuated, the abdomen was drained, a considerable quantity of fluid escaping daily. On July 4th, pain was complained of in the abdomen, and signs of a fluid collection in the upper abdomen rather to the left of the middle line were observed. On July 6th the abdomen was opened, and after raising the stomach and omentum a tense cyst was exposed and evacuated of three pints of simple blood serum. The cyst wall was stretched to the margins of the abdominal incision and a drain tube inserted. The discharge was free, and three weeks after the operation was found to contain trypsin, steapsin, amylopsin, and milk-curdling ferments. Seven weeks later the patient had entirely recovered.

M1 Brown considers that two distinct lesions were caused by the injury, one in the general peritoneal cavity and the other within the capsule of the pancreas, and that the withdrawal of fluid at the operation after the second injury, by relieving the pressure, allowed the formation of the true pancreatic cyst. He also draws attention to the fact that had he aspirated in this case the stomach must have been wounded.

A somewhat similar case was reported by Mi. Angus Maitin, of North Shields, and Mr Rutherford Mornison in the "Edinburgh Medical Journal," July, 1893, and in last year's "Annual" we described an analogous case, but in that case the general peritoneal cavity had become invaded by rupture of the primary cyst through the anterior layers of the great omentum.

In a paper on the above subject Dr. Theodore Fisher 4 writes "Pancreatic cysts have very frequently followed an injury, and it has perhaps been somewhat too hastily assumed that these cysts must have originated in a direct injury to the pancreas. There are, however, one or two points that militate against such a view. First, the pancreas is by its situation protected from injury; secondly, the cyst does not usually quickly develop after traumatism, but appears somewhat suddenly at the end of several weeks, months, or even years, thirdly, some sanguineous abdominal cysts that have developed after injury have been proved on post-mortem examination to have no connexion with the pancreas." Die Fisher suggests that these cysts may be the result of serious nerve lesions due to the injury and not to direct traumatism. In support of this theory he advances the following points.—

- (1,) The symmetry of hæmorrhages that occasionally destroy the supra-renal capsules suggests a central cause
- (2,) Hemorrhage into the pancies is frequently associated with spots of fat necrosis over the peritoneum, which, as suggested by Dr Rolleston, may be trophic
- (3,) A peripheral lesion may give rise to a central nervous lesion as is sometimes the case in paralysis agitans and progressive muscular atrophy
- (4,) The taking of one's wind by a blow in the pit of the stomach reveals a peculiar sensitiveness of the nervous system connected with the epigastrium to peripheral impressions

The author regards pancreatic cysts merely as manifestations of hamorrhage around the pancreas, which may arise in the gland itself or its neighbourhood and affect the gland secondarily by pressure. The main seat of hamorrhage appears to be usually the transverse meso-colon. Although suggesting the indirect causation of pancreatic cysts he considers that the subacute peritonitis and effusion, which sometimes co-exist, is more probably directly due to the injury

Dr. Charles McBurney,<sup>5</sup> at a meeting of the New York Surgical Society, reported a successful case of operation upon a case of cyst of the pancreas He expressed the opinion that the operation à deux temps was preferable to immediate incision in these cases.

McBurney believes these cysts to arise mostly from some portion of the duct. The condition was associated with glycosuria which was not relieved by operation

That aspiration may at times be sufficient to bring about a cure the ensuing case would seem to prove, nevertheless we feel that incision and drainage is, as a rule, decidedly to be preferred

Mr. J Lynn Thomas ereports a case of traumatic pancreatic effusion into the lesser sac of the peritoneum successfully treated by aspiration

The patient, a boy aged two years, had been knocked down by a cab, the wheel pissing over the abdomen. Three weeks after the in-

jury a bulky fluid tumour had developed in the epigastric umbilical and left hypochondriac region (see Fig. 30)

On aspiration thirty-eight ounces of altered pancreatic secretion were removed. Eighteen months after the accident the patient was in good health, well nourished, and nothing abnormal could be felt in his abdomen. Mr. Thomas considers that aspiration in a young child, in certain cases of traumatic effusion into the lesser peritoneal cavity, is safe and likely to be as efficacious as other methods of treatment, bearing in mind the curative effect of aspiration

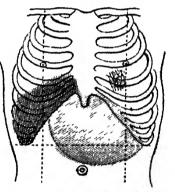


Fig 30 — I he area marked with parallel lines was dull on percussion and had a distinct thrill I he dulness passed into that of the liver and that of the heart.

in empyema and other pleural effusions in children.

At a meeting of the Clinical Society of London, Dr Churton, (Leeds), read a paper on a case of pancreatic cyst associated with diabetes, the cyst was incised and on death a year afterwards atrophy of the pancreas was found, the gland being reduced to a mere mass of fibrous tissue

Lichthiun's records an interesting case of atrophy of the pancreas in which the diagnosis was conjectly made during life. Fourteen years before, the patient had suffered for six years from recurring attacks of severe colic, associated with fever and vomiting. For the next seven years he enjoyed good health, and then began a year ago to suffer from obstinate diarrhæa and symptoms of diabetes, ultimately succumbing to pulmonary tuberculosis. On post-mortem examination the pancreas was found cirrhosed and showed advanced though not total,

atrophy of the glandular parenchyma. The canal of Wirsung and its tributaries were dilated and contained mortar-like concretions.

The diagnosis was made on the following grounds -

- (1,) The severe colic and violent epigastric pain, vomiting and-fever.
  - (2,) The occurrence of diabetes several years later.
  - (3,) The peculiar diarrhœa and the fatty appearance of the stools

Acute Pancreatitis.—Dr. J. E. Paul, at a meeting of the Clinical Society of London, read notes of a case in which after death the peritoneum covering the pancreas was found to be glued by recent lymph to the posterior surface of the stomach. The gland was much swollen and hæmorrhages were to be seen, most numerous in the tail. Microscopically the pancreas was seen considerably disintegrated, with total destruction in parts of the structure of the organ. Numerous hæmorrhages were to be seen, and clumps of crystals of hæmatoidin. The symptoms during life were sudden onset of severe colicky pain in the abdomen with vomiting, slight abdominal distension, and fever. No sugar in the urine. The patient died from collapse four days after the onset of symptoms.

RIFFRENCIS. -1"Rev de Chir,' July, 1894; 2"Med Chronicle,' Sept, 1894; "Ber. u d Verhandl d. Deutsch Gesell. fur Chirurg.," No. 30, 1894, "Lancet,' Jan 6, 1894, 4 Ibid. Jan 27, 1894, "No. 30, 1894, "Lancet,' Jan 6, 1894, 4 Ibid. Jan 27, 1894, "No. 30, 1894, "Beilin Klin Woch,' No. viii, 1894, "Brit Med Jouin,' Oct 1894

#### PARALYSIS AGITANS.

Symples — (Vol 1894, p 457) Duboisine, 2 to 3 deci-milligrammes three times a day hypodermically Sodium Borate, 4 grs four times a day, increased to two or three times the dose

PARALYSIS (Infantile). Robert Jones, F.R.C.S., E., Liverpool John Ridlon, M.A., M.D., Chicago

The Surgery of Infantile Paralysis —In dealing with this subject we would limit the definition of infantile paralysis to those disabilities resulting from acute anterior polio-myelitis, and would only exceptionally refer to other classes, and that chiefly with the object of emphasising the differential diagnosis. We would however mention one form of paralysis which may confront any practitioner, the knowledge of the significance and freatment of which is of considerable advantage. The child is born with an affection of the upper limb, which is observed in a fully extended position; the arm rotated inwards and the hand flexed, generally containing the thumb within

its grasp. If such an arm be rotated outwards by the surgeon, or release it immediately and almost forcibly resumes its abnormal posture. This condition is by no means uncommon and is an obstetric form of paralysis due always to injury during birth, and but rarely accompanied by paralysis of the leg (Fig. 31).

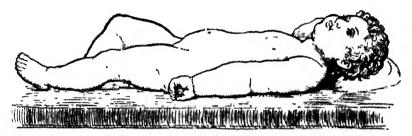


Fig. 3x -Showing the extended aim and fe oil hand

Untreated, it is liable on occasions to last for many months, and we have seen cases where we have been consulted for the thumb and hand flexion even as late as at two years of age. The treatment is simple and very effective, and consists in the reversal of the erratic posture. Instead of allowing the arm to remain rotated inwards and extended and the wrist and fingers flexed, the indications are to keep the arm rotated outwards, the elbow flexed and the wrist and fingers hyper-extended, while the muscles which have been overcome by their antagonists should be stimulated by friction and massage. Recovery generally takes place in about fourteen days, and this is not in the least aided by electricity.

The spinal paralysis of children to which the term polio-nychits refers is almost exclusively a disease of the second and third years, although cases have been recorded where the symptoms have been pronounced during the first few days of life, and other stray reports may be found where symptoms identical with those of polio mychits have occurred between the ages of six and twenty. The greater number of cases occur during the second year, and principally during the hot summer months. Well nourished and puny children are alike subject to these attacks, and no conditions that we know of can be defined as having an ascertained causal relationship to it. Certain it is that we have noted the frequency with which the condition is found amongst the children of mill operatives and in manufacturing communities generally, and we cannot tell whether this is due to the late marriages and the employment of worker, or to the degenerate

nervous systems of the paients caused by poor food, long hours and wretched hopeless lives. It would appear that any condition which renders the nervous system of the infant vulnerable, whether acquired or inherited, due to personal privation or sickness, may be sufficient to invite an attack when extreme summer heat, teething, or intestinal irritation, be added. We have been unable to trace amongst the causative agents a syphilitic, alcoholic, or tubercular diathesis.

A large proportion of cases which come for treatment are not supplied with a history of the onset of the paralysis. Mothers cannot remember, and if they do, they cannot supply detail. In our experience the early history will coincide with one of the following groups.—

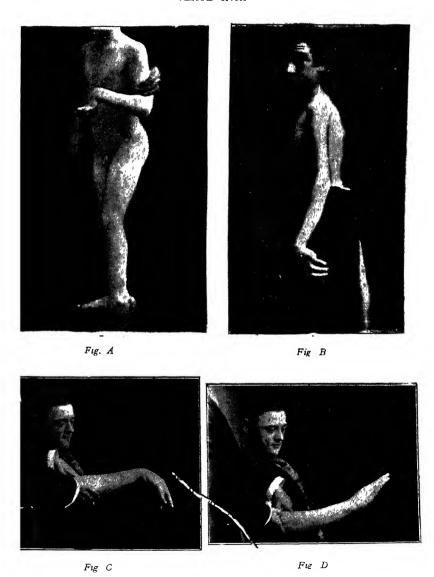
Group 1.—A child is suddenly taken ill The symptoms are those of a feverish cold. Pain is also complained of in the head and back. There is often a little diarrhæa For four or five days the temperature varies from 99° to 102°. On examining the limbs paralysis varying in degree will be found.

Group 2.—A child is irritable and "out of sorts" and is put to bed In the morning it is found that paralysis in one or more limbs has occurred. In other respects the child appears to be well

Group 3.—A child is suddenly seized with vomiting and convulsions, which may or may not be repeated. This condition may last for a few hours or for several days. As the acute symptoms pass off, the paralysis is noted. It may affect any muscle, or any group of muscles, or any number of muscular groups.

The greater number of cases in our experience correspond in their origin to the first division, while only a very few exhibit cerebral symptoms In nearly all, the onset of the paralysis is sudden and attains its maximum at once. Subsequent events are uncertain. Sometimes, in a few days several of the paralysed muscles show signs of improvement (Fig. A, Plate XVIII) If the aim and leg or both legs be paralysed, recovery may take place completely in all excepting perhaps a single muscle, or a single group of muscles, or a single This may occur in a few weeks, but more generally in a few months In the arm the deltoid muscle is that most often affected. and frequently associated with it are the biceps, brachialis anticus, supinator longus, and extensors of the fingers In the leg the antero-external group of muscles, the long extensor of the "toes, tibialis anticus, the special extensor of the great toe and the long and short peronei, are the mascles most frequently affected; or the paralysis may include all the muscles of both lower extremities, or one arm and leg, while even some of the trunk muscles may be involved.

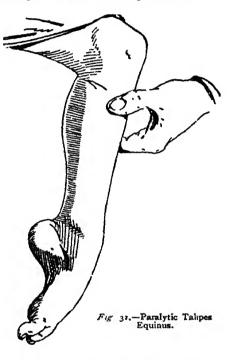
## PLATE XVIII



MEDICAL ANNUAL, 1895.

Paralysis affecting a whole lower extremity usually does not include the psoas and iliacus muscles, which are still able to swing the limb forward (Fig. 32). Faradism is diminished or lost while the galvanism formula is reversed, thus exhibiting the reaction of degeneration.

We need only refer in a few words to the pathology in order to make clearer the symptoms It consists of an acute inflamination of the grey matter of the antenor cornua There have been only two or three post-mortem examinations in fairly recent cases. The one is that reported by Dr. Drummond, where a child five years of age died after a few hours' illness. The spinal cord in the region of the fourth and fifth cervical nerves presented an undue redness. The vessels to the cornua were distended. By the aid of the microscope the capillaries were found to be distended, small extravasations in the grey matter, swelling of the neuloglia and ganglion cells, the processes from the cells being indistinct



Damaschino examined the cord of a child two and a half years old who died twenty-six days after an attack. The arm and leg were paralysed. He found spots of red softening in the anterior cornua of the cervical and lumbar regions. The blood vessels were distended, there was marked atrophy of the cells and of the myeline sheaths of the anterior root fibres. Dr. Charwood Turner has reported changes of a similar character, but more advanced in the case of a child who died six weeks after the paralytic onset.

In the absence of an accurate pathology we may rest assured that there is a hyperæmia of the cord which has the effect of destroying temporarily, or for ever, certain ganglion cells in the anterior cornua. These cells having trophic as well as motor functions, any injury to them gives rise not only to certain paralyses, but to impeded circulation and arrest of growth.

When we examine at a late period therefore, we find a shrivelled limb with wasting out of all proportion to that caused by mere desuetude (Fig. B). It feels cold to the touch, is shorter than its fellow, and usually presents a mottled blue colour. When the affected member is not retained in the normal position during the acute stage it assumes a position of more or less deformity, the affected muscles being stretched by their unopposed and healthy antagonists. For some time this deformity can be readily overcome, but sooner or later this ceases to be possible, structural shortening having taken place in the healthy or less affected muscle.

The surgical treatment of the paralysis should commence as soon as a diagnosis is made. Space will not admit of a detailed description of the mechanical and operative treatment resorted to in the early and late cases. A few of the more important points however will be pointed out. We are very apt, basing unconsciously our practice on the pathology of the ailment, to strike a pessimistic note in our references to polio-myelitis. This is unfortunate and not justifiable. When we state that if practitioners were alive to the therapeutic and mechanical agencies open to them that we would fail to find any case of paralytic deformity following polio-myelitis, it is a very strong but very true assertion. When we further add that were the contracting deformities no longer amongst us. that the chief impediments to the restoration of useful limbs would be also gone, we only very temperately state the position of things. And yet it is rare to find a case of old infantile paralysis which has affected more than a mere group of muscles, without the mevitable deformity. It is not as if the worst deformities occurred in the most hopeless class of cases; on the contrary, the presence of marked deformity bespeaks certain active groups of muscles.

We will divide the surgical treatment of these cases into three divisions: the mechanical preventive treatment, the mechanical treatment of deformity; and the operative treatment

The preventive treatment relates to ne prevention of deformity, and aims at disallowing from faults posture any advantage to the stronger and less affected grows of muscles

The principles of treatment in the arm and leg are identical, but for convenience we will deal with the limbs separately.

(I,) The Arm.—As we have shown we may have any, or all, of the muscles affected, be it is very unusual to find more than certain

# PLATE XIX.





Fig. E

Fig F



Fig G

groups (Fig B); in the upper arm the deltoid, biceps and brachialis anticus, and often the triceps; in the forearm the suprnator longus and the extensors of the fingers (Figs. C, D, and Fig. E, Plate XIX) We will be helped in deciding in our preventive treatment if we try to recall the old untreated cases which we have seen.

If the upper arm has been mainly affected we will notice first of all a total inability to flex the elbow, and a lax condition of the shoulder joint due to deficient muscular control. We can place the head of the humerus into almost any of the classic dislocations. If the lower aim be mainly at fault the deformity nearly always is a flexion of the wrist, with a varying degree of finger flexion.

What we have to do therefore is to anticipate and therefore preven these disabilities (Fig. 33). The wrist should be kept hyper-extended

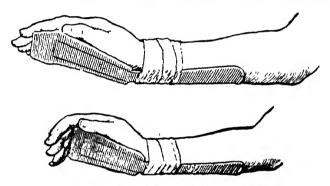


Fig 33 -Splints for keeping hand hyper-extended in wrist-drop.

by means of a light splint, the elbow flexed by means of a bandage or leather halter applied round the wrist and neck, and the head of the humerus should be kept in apposition to the glenoid cavity. So much for the mere mechanical routine. This should be aided three or four times a day with massage shorn of the occult and mystic. The nurse or mother should be instructed how to beat and pinch every bit of affected muscular tissue for about ten minutes at a time. What is aimed at is a bruising of the nurseles. We generally get the attendant first to make three or four first pinches with all the fingers at the deltoid in three or four places; the same with the biceps, triceps, etc. Then with the end of the fingers he gives the whole arm a short beating, then a good rub. If this be done constantly the circulation of the arm is suitely improved, the deltoid and bicept, if partial recovery in the motor area should occur, have not to recover from the terrible dis-

advantage of being overstetched and lengthened, and any undue advantage which posture and shortening of muscles might give to the flexors is certainly avoided. How long should such treatment continue? For fully twelve or eighteen months, unless marked indications of unusually rapid recovery are observed! If the child should move the arm freely, splint and all; or easily lift its fingers from the splint which already extends them, a trial might be given the aim (Fig. F, Plate XIX) Should inequality between muscle groups become evident, treatment should at once be resumed.

(2,) The Leg.—The deformities which we meet with in neglected cases are t equinus; t. eq. varus, t. equino valgus; t varus, contraction of knee; contraction of hip, knock knee.

These deformities are often accompanied by abduction and eversion. The same instructions should be followed with regard to muscle beating and muscle pinching, as have been given in the case of the arm. Friction should be most perseveringly employed, masmuch as the nutritive deficiences in the leg are more pronounced than in the arm. As soon as the child is old enough to walk (and until it is old enough to walk it should not be allowed to bend its knee) we should place a Thomas's calliper splint both to facilitate progression and to so develop the psoas and macus as to enable them to easily push the limb steadily forward. The boot in which the splint is fitted keeps the foot from any equinus tendency, and should any recovery take place in the cells governing the extensors of the foot, the quadriceps or the sartorius, the disability caused by stretching and elongation of muscle-tissue, will not have to be contended against, and flexion deformity at the knee will be impossible. We endeavour therefore to prevent deformity and disability in the foot by keeping it flexed, so strengthening the dorsal flexus. This is equivalent to antagonising the contending action of gravity which emphasises the deformity of the wrist, elbow, foot, and knee At first sight one would think that gravity would never tend to cause flexion of the knee, but when we consider the assistant effort of the psoas and iliacus the position of the leg becomes fully explained Should both limbs be affected the same treatment should be adopted, but if there be a tendency during the later months to contraction at the hips it may be necessary to lay the infant upon a manification of a double Thomas hip splint with rectangular supports for the feet.

Treatment of Wrist Drop of Old Standing—In dealing with old neglected cases of infantile paralysis we have to carefully discriminate between the loss of power if a muscle and the loss of utility in it due to structural shortening (Figs. B, C, Plate XVIII). This can best be

# PLATE XX.



Fig H



Fig I



Fig L.



Fig K



Fig M

demonstrated by dealing with our proceedings in the case of the common paralytic deformity known as dropped wrist. It will astonish most physicians and surgeons when we state that in the vast proportion of cases where the flexor muscles are contracted and where there is no power of extension of the wrist, recovery is attainable after many years of disuse. Before entering into any explanations of the fact, we will, contrary to the usage of the "Annual," give outline sketches of three cases which will serve as types.

V. I., aged twenty, residing at West Kirby, was brought to one of the authors in 1885. For eighteen years he had not used his wrist, which had remained flexed at an acute angle. The patient was able to moderately extend both wrist and fingers by using the other hand It would immediately resume the old position on the removal of the force. He was able to hold light objects in his hand if carefully placed there, so long as the position of acute flexion was maintained, During his early years he had undergone much treatment, but for ten years the condition had been looked upon as hopeless. He had spared no expense in endeavouring to obtain aid, and had consulted some of the best of our physicians and surgeons. Apart from the usual applications of electric remedies, warmth, etc. nothing was suggested, and the prognosis was sufficiently hopeless to discourage him On examining him we assured him that in from from all effort twelve to eighteen months, co-ordination would return, and he would be able to use his hand and wrist for all practical purposes (Fig. tr. Plate XIX) In less than two years he was carving wooden organ pipes, and had full restoration of movement in the wrist and fingers. This case was exhibited at the Liverpool Medical Institution.

A young lady, aged seventeen, resident in Southport, was sent to one of the authors by his friend, Dr Chas. Lee, of Liverpool For fourteen years, following an attack of polio-myelitis, she had not been able to use her hand or wrist excepting very imperfectly in a fully flexed position. Her social position was such that no expense was spared in endeavouring to overcome the deformity and to render the limb useful, but with no success, and for ten years all treatment had been suspended. She almost apologised for consulting us, as she felt so convinced of her utter hopelessness. We were able, after a short examination, to give a hopeful prognosis, and in less than two years she recovered the use of fingers and wrist, the hand, however, in repose maintaining some slight adduction (Fig. II, Plate XX).

S B, a youth of fifteen, residing in Liverpool, was the subject of infantile paralysis, involving the upper aim and scapular muscles,

and to a lesser degree those on the extensor aspect of the foleaum (Fig. B, Plate XVIII). The arm remained fully extended, with wrist and fingers flexed. Ouite casually, the mother while being treated for another ailment, told her trouble regarding her son. For some years treatment had been discontinued, as it had proved of no benefit journeys had been paid to men of reputation, and finally for two years the little patient had remained in the metropolis in order to undergo gymnastic evolutions under expert advice We promised a useful hand, but after examination were unable to speak confidently of the arm (Fig. F, Plate XIX) In twelve months the boy had so far recovered as to be able to keep the wrist in an extended position and move the fingers freely in the normal range. Without splints on, the biceps had so far recovered as to be able for a few seconds to hold the forearm in a position of right angles, and with an effort the triceps could be seen to contract. The thickness of forearm and wrist had very obviously and considerably increased (Fig. I, Plate XX). continues to improve.

The bare record of these cases, without a note of explanation, would naturally be received by our readers with incredulity, and this would last just so long as the explanation was withheld. The real fact, however, is that the large majority of these patients are not suffering so much from paralysis as from a want of equilibrium between muscular groups due to certain advantages gained by the stronger sets. Let us take any one of the three cases I have reported, and examine the hand. We will first flex the tingers still more acutely and we will find that the extensors, while the wrist is flexed, will sufficiently act to carry the fingers to the position from which they were further flexed. this we learn the key to treatment for we know now that the motor cells in the anterior cornua governing the extensors are not totally destroyed, and that there is some disability greater than the actual paralysis holding the hand down That this is due primarily to a shortening of the flexors and an elongation of the extensors is practically certain. How this comes about we have no desire to enter into now Certain it is that treatment must consist of a reversal of the conditions In other words we must stretch the contracted tendons and shorten the elongated ones This needs no operative procedure and may be made to depend entirely upon the simplest mechanical contrivance.

The hand is first slightly extended and a splint applied. In two or three days it is more extended, until at the end of a week or two it is kept in the position of full extension upon a plain angular iron splint (Fig. 33, and Fig. I, Plate XX). The effect of this is to stretch the

## PLATE XXI.

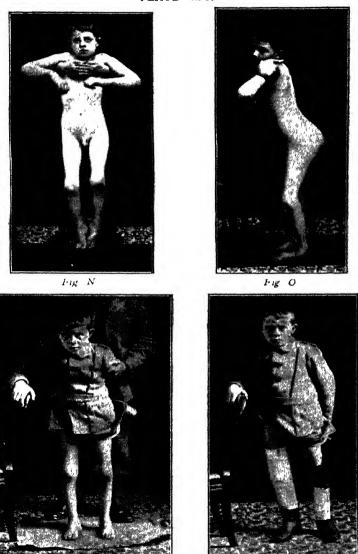


Fig. Q.

MEDICAL ANNUAL, 1805.

contracted flexors and to keep in a lax condition the overstretched and lengthened extensors. These extensors, as the months roll on, to use a nautical expression, "take in their slack," in other words, they become shorter. The patient, when asked to move his fingers, will be able as recovery goes on, to hold the hand in the extended position, and now that the balance between the two groups of muscles has been restored, the cure has been practically effected (Fig F, Plate XIX). During the whole time, however, that the arm is in a splint, active treatment must be continued. In the first place, no bandage or plaster should surround the arm excepting at the wrist where no muscular tissue exists. Every day the fleshy portion of the extensors should be several times energetically beaten. By such simple treatment as this, which can be practised in the country as well as in the town, and in private practice equally with the hospital, can these neglected and forlorn cripples be made useful and happy. We will not enter into the treatment of neglected paralysis of the upper arm, as it is based on principles identical with those already enunciated, and we will now proceed to discuss treatment as applied to the lower limbs.

Treatment of Paralytic Deformities of Lower Extremities.—In this section we will not discuss the treatment of the various forms of club foot acquired by paralytic contractions, but will confine ourselves to those conditions which essentially prevent a patient from walking. In other words we will discuss the problem of how to make a paralytic walk.

We will take, first, the patient who merely suffers from paralysis of the extensor longus digitorum and its accessories. He suffers from drop foot due to contraction of the calf muscles and complete or partial paralysis of the doisal flexors. We first correct his equinus deformity, place his foot in a boot with an iron stem up the back of his leg, so constituted as to prevent extension of the foot during walking, or even better still is the Judson brace. Massage here as elsewhere.

Equally common but more serious are those cases where the whole limb is paralysed, cold and discoloured. Such cases may be seen with their crutches almost at any time. Unable to stand on the limb except by a balancing movement, they generally develop a contraction of the knee, and may be noted by a peculiarity a number of them have of keeping their foot curled around the crutch during progression. It is easy to make the lot of such much more endurable.

In the first place, if there be equipus one divides the tende

If valgus, or other deformity, one corrects it or them in achillis. the usual way, and then by means of a Thomas knee splint, one endeavours to correct the contraction of the knee And here we may mention that this contraction may be attacked either by the simplest mechanism or by a division of tendons Dr. Ridlon generally divides and straightens, Mr Jones straightens by the use of the Thomas splint and pressure pads. Either method will do As soon as the limb is straightened a cloth top-boot with sufficiently thickened sole is applied, and the Thomas splint cut down so as to run into the heel of the boot. The patient is then instructed to practise walking, and very shortly, with a perineal crutch in the form of a splint, he is enabled to dispense with the ordinary crutch. Sometimes, as is depicted in the drawing (Fig. R. Plate XXII), we have one paralysed limb to deal with and considerable mechanical detect in the other. The patient depicted was sent to us in order that the right leg might be amputated His left ankle was inveited, and handicapped him in his endeavour to walk (Fig. K, Plate XX), and there appeared to be some paralysis of the tibialis posticus. His left leg was absolutely powerless and flail, with an extreme valgoid deformity of the ankle. After a very few weeks' treatment the inversion of the left and the eversion of the right foot were corrected, a calliper affixed to his right leg and a side iron to his left boot (Fig. Q, Plate XXI), and now he is able to progress short distances without crutches, and the photo (Fig. K. Plate XX), when compared with the photos (Figs. L and M), will at once explain the difference in his appearance

A similar improvement is noted in the case S A, if Figs. N and O be compared with Figs P and Q, Plate XXI, and also by comparing the photo of a very helpless paralytic (Fig. R) with that taken after treatment (Fig. S, Plate XXII)

Of yet greater interest are those cases where we find the patient is only able to crawl along. By consulting a series of photographs the reader will see the case of E A H, of Milnthorpe, Cumberland. When he consulted us he was only able to crawl from place to place. He was eight years old and had been seized with polio-inyelitis at the age of three-and-a-half. Treatment of every kind had been applied, and for several weeks he had been an inmate of a large Scotch Infirmary. As is shown (Figs. T and V, Plate XXII), on being held by an assistant we were able to note the fact that he had acute flexion deformity of both hips, flexion of the knees, genu valgum, and double talipes equinus. Acting on the principle emphasized, we first endeavoured to correct the deformities. One morning we divided his heel tendons and straightened his foot, and then we

# PLATE XXII.



Fig R



Fig S.

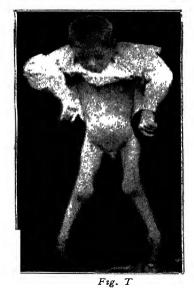




Fig V

MEDICAL ANNUAL, 1895

applied an iron frame, not unlike a double Thomas hip splint, with two bars running along the outside of each stem, reaching from the thigh wings to the leg wings. Upon this the little patient was placed and bandaged, the two side bars governing his knock-knee and the rest ordained to correct the knee and hip flexions. During the first week on fixing the legs down, the shoulders remained five inches from the splint and had to be supported by a pillow. This will convey an idea of the acute flexion of the hips. The first photograph (Fig. X. Plate XXIII), was taken fourteen days after the commencement of treatment We observe the marked lordosis even then, and the feet now at right angles to the legs. Seven weeks later (Fig. Y) we notice the diminish my lordosis due to the decreasing flexion at the hips, and a few months later we see him lying unsupported on the table (bir. 4) The genu valgum is quite corrected, the flexion at the knees quite gone, the hips almost straight, and the feet at right angles. I ater, he has his walking splints applied (Fig. IV), and now by the aid of his psoas and iliacus on each side he commences to use his limbs.

Such cases as these teach us to be hopeful, and to be careful to discriminate between muscular contractions and absolute paralysis

They also clearly show the importance of rescuing any muscle, be it partially paralysed or not, for the purposes of locomotion or general utility.

It is impossible in our limited space to discuss in full detail the mechanical treatment of all the various deformities dependent on paralysis. We have only attempted to sketch a general outline.

The Operative Treatment of Flail Joints—The authors

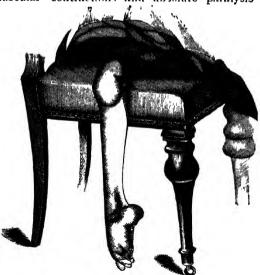


Fig 34 -Flail knee and ankle.

recommend where a joint is quite flail and where there is absolutely no muscular government, to approximate as closely as possible the leg

to the splint, which otherwise it is destined to carry for life. This is done by partially anchylosing the ankle, and completely anchylosing the knee and allowing the psoas and iliacus to carry the leg in one place just as it would carry (in the case of an amputation through the thigh) an artificial limb. Such an operation would be employed in the case of A. K. (Fig. 34).

The operation practised by Robert Jones consists in opening the joint, and with a scalpel or sharp gouge, peeling the superficial layer of cartilage off the whole articulation in the case of the ankle, and gouging the bone in the case of the knee, keeping the joint completely at rest for some weeks subsequently, and for a long period fitting the limb with a simple apparatus which will enable the patient to walk without throwing a strain upon the newly fixed joints. An excision is more than the case requires, and involves a greater sacrifice of tissue than an already shortened limb can spare. To expose the knee, make an incision across the front of the joint, covering fully half its circumference, and curved so as to pass below the lower end of the patella The flap is turned up and all the vessels ligatured. Next, remove the semi-lunar cartilages, and with sharp, short-bladed knife or gouge, peel away the cartilages and the underlying layer of bone, so as to leave a raw surface over the whole of their extent. The crucial ligaments are generally left intact. The structures are then carefully reunited by deep and superficial sutures, no drainage tube, of course, being employed, and the wound is well covered with perchloride wood wool wadding

The operation may be carried out in the ankle joint in one of two ways, according to the circumstances of the case In old cases, where the foot is deformed and assumes the equino-varus variety, the astragalus is well to the front. In such, force the foot into a position of extreme equino-varus, and make an incision immediately in front of the external malleolus, follow the line of the ankle joint for about an inch or more and divide all structures down to the astragalus, generally only sevening the perone is tertius tendon If the incision needs enlarging, skin only is cut, further, the other tendons are held aside. and the articulating surface of the astragalus exposed With a gouge or knife, several grooved portions of the articulating cartilage are removed. If complete bony anchylosis of the ankle be desired it will be necessary to gouge the bone. If a fibrous anchylosis be wished, it will be sufficient to peel off parts of the cartilage. The ankle is kept extended while some pieces of the articulating surfaces of the tibia and fibula are removed. The few vessels are tied, the foot is placed in its normal relation to the leg, and a suture or two close the wound.

# PLATE XXIII.



Fig W

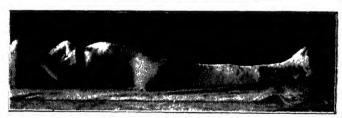


Fig X



Fig. Y



Fig Z

pad of wood wool tissue applied over all and firmly bandaged completes the procedure. In other cases the astragalus is more easily approached from behind, and in such, the foot is firmly flexed on the leg and an incision down to the bone is made along the external border of the tendo achillis. The posterior ligament is now freely divided, and the gouging takes place as in the former operation.

No mishap has occurred in any of our series of twenty-six cases. Each wound has healed by first intention, and, contrary to expectation, those cases where nutritive changes were most marked, healed as readily as those whose nutritive conditions were nearer normal. There is little or no pain attending the healing of the wound. If we have to operate upon both knee and ankle, we apply two splints, one a flexible metal splint so designed as to permit of easy dressing of the ankle wound, and a Thomas's bed splint for the knee. These can be used admirably in combination. During the stage of getting about, the Thomas splint can be altered to admit of walking, and the ankle is in that way saved from every harmful influence.

We have not included in this list a similar operation which we perform in talipes calcaneus, often accompanied by pes cavus - It gives, to our minds, very much more satisfactory results than the shortening of the tendo achillis suggested by Mi Willett Some years ago we operated on several tendons in the manner prescribed by Mr. Willett, but we can only recall two cases where the improvement was maintained for any length of time, and in these, prior to operation, there was considerable muscular power in the muscles related to the tendo achillis and in their opponents. The moment we try to pit a paralysed tendo achillis, shortened by operation, against the superincumbent bodyweight exercised during locomotion, there can be only one result. and that is, a fresh and speedy yielding of the tendon. We must have some vitality in the gastrocnemius and soleus operation, plus scraping of cartilage be performed, we will obtain considerably better results, for on exhibiting the joint from behind we can remove and shorten the tendo achillis, and erase just sufficient cartilage to limit the action of the ankle to about 10°. The same procedure may with benefit be applied where, in addition to an elongated heel tendon, the tibiales have been completely paralysed, producing a deformity of calcaneo-valgus which cannot be rectified by the hand.

#### PEMPHIGUS.

Synopsis — (Vol 1894, p 457) Liq Arsenicalis in young people. Later in life Quinine, stimulants and dieting Perchloride of Iron in chronic cases Opium in acute cases Locally Zinc Ointment or Pick's Zinc Gelatine with Carbolic added Sponging the skin with weak Coal Tar Solution R Liq Carbonis, 31, Glyc, 38s; Water, H

## PERITONITIS.

A W Mayo Robson, FRCS

Advance in abdominal surgery is in no subject better shown than in the treatment of peritonitis, and this, in the perfecting of methods previously known and adopted rather than in the adoption of any new procedures, this advance is well shown in a paper by Mi Lockwood, read before the Royal Medical and Chiurgical Society, October 231d, 1894, which communication begins with the remark that the term diffuse septic peritonitis probably includes several kinds of disease. In the variety referred to by the author the inflammation is acute, and has no definite limits; the serous membrane is smeared with lymph, which is either transparent and oil-like or collected in ashen-grey fibrinous flakes; adhesions are absent, or very slight; the peritonical cavity contains thin purulent fluid, which often has a fæcal odour; or it may be full of gas, the intestines are distended and paralysed; and the disease runs a rapid and fatal course.

Although cases which come within this definition are numerous, surgical literature contains few records of recovery after operative intervention.

Hitherto, the author has operated upon cases of diffuse septic peritonitis, more because he was afraid of over-looking a mechanical obstruction than in the hope of curing the peritonitis. A case is described to illustrate the importance of intestinal paralysis and distension in causing the fatal ending. Stress is also laid upon exhaustion and collapse as factors. In the author's successful cases, a systematic attempt was made to meet exhaustion and collapse by stimulating the patient temporarily before the operation with strychnine and brandy, by the systematic application of warmth during the operation, and by rapid and methodical operating, and by warmth, stimulants, and nutrient enemata afterwards

To empty the intestines the gas is drawn from each coil by puncturing it with a fine trochar and cannula; the fæces are let out by an incision, which is afterwards closed. The abdomen is afterwards irrigated, and closed after the insertion of a drain. Two cases of diffuse septic peritonitis are described in which the treatment was successful. In the first there was a perforation of the ileum. The peritonitis was of not less than forty-eight hours' standing. In the second case the peritonitis had probably been in progress fifty-two hours. The abdomen was full of free gas, with the usual lymph and purulent fluid. The cause was thought to have been a septic inflammation of the left Fallopian tube. She is now convalescent, the operation having been done more than five weeks ago. A third case is described, in which the peritonitis was diffuse, but different in type. In this the

recovery was mainly attributed to an accidental fæcal fistula, which discharged, and prevented distension and paralysis after the laparotomy.

Mr. Howard Marsh<sup>\*</sup> records a successful case of acute general peritonitis due to enteritis treated by laparotomy, removal of intestinal contents by means of a cannula, and lavage of the peritoneal cavity. He remarks that in addition to laparotomy and lavage, it is often necessary to open the intestine and as far as possible to remove the material which it contains and which teems with a virulent microorganism, by which the process of peritoneal inoculation is being constantly repeated

Herhold's relates two cases of diffuse purulent peritonitis in which recovery ensued after incision and drainage.

W. H. Wiggen has employed peroxide of hydrogen in full medicinal strength in cases in which, by accident or disease, pus has gained access to the peritoneal cavity. He believes that this method is entirely without danger.

In the Lettsomian Lectures Mr. Treves 4 points out that in the large proportion of examples of fatal peritonitis the leading symptoms are those of poisoning and not of inflammation; and that the cases in which suppuration is the most pronounced are among the most favourable examples of peritonitis, while, on the other hand, the most acute and unfavourable cases are those which show the least inflammatory changes.

Localised peritoritis is met with in those regions which are unoccupied by the coils of the lesser bowel. The front which is apparently most sensitive to infection, and which is most prone to rapidly spreading and diffuse inflammation, is that which covers the small intestine

The lecturer remarked on the comparative invulnerability of the peritoneum in those who are the subjects of chronic peritonitis, or of repeated sub-acute attacks due, in his opinion, to an acquired immunity to septic infection.

He thought the following classification of peritonitis, according to its cause, appeared to be justified by our present knowledge of the subject:—

- (1,) Peritonitis due to infection from the intestine (bacterium coli commune).
- (2,) Peritonitis due to infection from without (pyogenic cocci, especially streptococcus pyogenes).
  - (3,) Peritonitis due to the pneumococcus.
  - (4,) Tubercular peritonitis.

(5,) Peritonitis of doubtful nature: (a,) peritonitis due to irritants, (b,) forms reputed to depend upon rheumatism, gonorihoea, syphilis, Bright's disease, and alcoholism, (c,) peritonitis in the newly-born.

In discussing peritonitis due to infection from the intestine, the lecturer draws attention to the fact that the bacterium coli commune can produce pus after inoculation, and that these various forms of peritonitis which are assumed to be of intestinal origin, depend mainly, and in many instances solely, upon the bacterium coli commune

The production of peritonitis by non-infective irritants is not yet satisfactorily proved, but injury done by such irritants would appear to favour the action of pathognomonic bacteria.

The existence of rheumatic peritonitis is doubtful, and that associated with genorrhoa is probably not due to the genococcus which will not live in the peritoneum, but rather to pyogenic infection of the genital discharges and extension to the peritoneum.

The peritonitis reputed to be due directly to Bright's disease, alcoholism, and to syphilis, would seem rather to occur under conditions favourable to bacterial growth, or to be due to extension from parts which are already inflamed

Peritonitis in the newly-born is due either to extension from an inflamed cord or to rupture of the bowel from any cause.

By the elaborate experiments of Kader it is now evident that meteorism, as met with in disease, depends almost entirely upon gross disturbances in the circulation of blood through the affected portions of intestine. Vomiting is the most constant symptom of peritonitis, but is usually absent in cases of perforation of the stomach

In discussing the use of aperients in peritonitis Mr Treves said "In the peritonitis following hernia, or associated with acute intestinal obstruction, the complete evacuation of the bowel is desirable for reasons which are apart from the peritonitis. In septic peritonitis—in the usual acceptation of the term—aperients are useless, and the same may be said of their employment in true perforative peritonitis. In a large proportion of examples of perityphlitis, and in the pseudo-ileus which may follow after operation, the prompt evacuation of the bowels is often attended with the very best results."

In a paper on tubercular and suppurative peritonitis Carl Becks remarks, "I have repeatedly been able to affirm that when the axillary and rectal temperature differed for more than two degrees pus in the peritoneal cavity was always present." He advises liberal dusting of the peritoneum with powdered iodoform in tuberculous and septic cases.

Salvador Garciadugo<sup>6</sup> describes a method of detecting small effisions into the peritoneal cavity. By placing the patient on the back on an inclined plane, the fluid collects in Douglas' pouch in females, and the recto-vesical sulcus in males. By digital examination per vaginam in the former and per rectum in the latter, fluctuation is detected. By altering the patient's position from side to side or to complete recumbency the fluid collection can be felt to move coincidently.

Treatment of Tubercular Peritentis Treves? quoting Aldibert's figures gives the percentage of cures as 69.8, and of complete recoveries as 33.4 in tubercular peritonitis treated by laparotomy. With regard to drainage he says: "Drainage is not necessary, and indeed drainage of the whole cavity is impossible. The gauze drain is better than the rubber tube. Fistulæ have been somewhat common after the use of the tube."

Roswell Park 8 says that among the signs of tubercular peritonitis are reddening and thickening around the umbilicus which are due to extension of inflammation along the obliterated umbilical vessels

Duran? recommends the insufflation of sterilised air in these cases, and reports two successful cases. The air had previously been passed through caustic potash moistened with phenic acid. In both examples reported there was considerable reaction, as evidenced by fever, nausea, and tympanites, the latter lasting about eight days.

Nolin to records three cases of tuberculous ascites treated by insufflation of sterilised air. Two were apparently completely cured, the other died two months after from tubercular ulceration of the intestine, the ascites had however not returned.

Guignabert " describes a method of treatment of tuberculous ascites, originally suggested by Rendu, which consists in partially emptying the peritoneal cavity of scitic fluid, and then injecting through the cannula which is left in situ fine hypodermic syringefuls of camphorated naphthol, subsequently closing the puncture with an aseptic dressing. The immediate result is a more robust inflammation followed by complete resolution.

REFERENCES—I" Lancet," Oct. 27, 1894; 2" Deut. Med. Woch.,"
Sept. 27, 1894, 3" New York Med. Record."; 4" Brit Med. Journ.,"
Feb. and Mar., 1894; 5" New York Med. Journ.,' April 21, 1894;
6" Med. Record," Jan. 27, 1894; 7" Annals of Surgery," May, 1894;
8" Med Age," Jan. 25, 1894; 9" Revistas de Ciencias Medicas de Barcelona."; 10" Berlin. klin Woch," No. 34, 1893; 11" Journ. de Médicine de Paris," p. 155, 1894

#### PERTUSSIS.

Synopsis — (Vol 1894, p 458.) Digitalis to counteract heart strain Locally, volatilized Carbolic Acid, nasal or laryngeal insufflation of Quinine, Boric Acid, Benzoin or Resorcin, and application of the last, especially in spray or by brush to fauces and larynx Thymus Serpyllum Tincture, m 20 to 30 Rectal injection of Carbon Dioxide Rest in bed with administration of Sulphurated Antimony, gr 1/3 every two hours in catarrhal stage During convulsive stage inhalation of solution of Carbolate of Soda, Bromide of Potash, or Salicylate of Soda Relieve coughing by narcotics, anæsthetics, or inhalations of 10 to 20 drops in a handkerchief of: B. Sulphuric Ether, 4 parts, Essence of Turpentine, I part. Also Quinine internally, and during the day 2 to 6 teaspoonfuls of B Ext, Belladonn, grs viij; Syr Ipecac., Jiv; Antimoniated Water, Jiss; Distilled Water, Jiv Jyles Sozoiodol-sodium, 3 grs, blown into the nostril each day. For the cough RExt Belladonn., gr 1, Aluminis, Ass: Syr Zingib, Syr. Acac, Aq, aa 31

#### PHARYNGO-MYCOSIS.

Synopsis — (Vol. 1894, p. 460.) Anhydrous Chromic Acid fused on a probe locally. Iodo-Iodated Zinc Solution, Galvano-cautery, and Chloride of Zinc.

## PHARYNX.

Synopsis.—(Vol 1894, p. 461) For general thickening, swabbing out with Lugol's Solution. R lodine Bic, gr. vi, Iodide of Potass, gr. xi; Ol. Menth. Pip., m xii, Glyc, gi. Granular pharyngitis, slight forms, may be treated with Trichloracetic Acid in strong solution. For erysipelas Ice, Cocaine, and Sublimate Sprays. For tubercular ulceration Galvano-cautery and Lactic Acid

# PHTHISIS (The Dietetic Treatment of).

Henry P Loomis, M.D. New York.

In all cases, for the successful treatment of phthisis, attention to diet is of paramount importance, climate and medicine are secondary. It is particularly necessary to emphasise this, as it is a point often overlooked altogether, or is noticed with directions so desultory and imperfectly understood by the patient as to nullify the best results

It is a well-recognized fact in phthisis that, as the patient's weight increases, the symptoms ameliorate, and the physical signs in the lungs improve. We have not only to provide the patients with food for current needs and to repair daily excess of combustion, but to make up, as far as possible, for previous uniepaired waste. It is known that, by care and strict observance of certain necessary regulations with regard to its quantity, its quality, and its methods of cooking and taking, consumptives can be made to assimilate a quantity of nutritive food far in excess of the needs of the organism. We say, then, increase in weight in phthisical patients, with the attendant good results, is brought about chiefly by forced feeding, in many cases without the aid of medication.

What may this food be? Milk and meat are the two articles of fe od which in themselves furnish the greatest amount of heat and power producing elements with the least expenditure of digestive energy. That milk and meat may be taken in sufficient quantity, and during a long enough period to produce good results, they must be modified and varied to suit the individual case. Here is where the intelligence and care of the physician are put to the test.

A few general rules on the wise administration of these two important articles of diet in the treatment of phthisis, may be of service.

Milk should never be taken in quantities exceeding 8 ounces at a time, and then should be swallowed slowly during ten or fifteen minutes. When several quarts are drunk in twenty-four hours, limewater must be added in the proportion of a tablespoonful to 8 ounces. One of the most palatable ways in which milk can be administered is that of being scalded, with seltzer water added. This mixture is especially refreshing in the early morning

Some patients cannot take milk, either from a personal idiosyncrasy or enfeebled digestive powers To such persons kumyss or matzoon can be given with great benefit.

Where the digestive powers are especially weak, peptonized milk can often be assimilated in large quantities, but the objection to its prolonged use is, that after a time its taste palls upon appetite. Two to four quarts of milk should be taken in twenty-four hours. The manner of serving it is not unimportant. To some it is more palatable cold, to others hot. In the majority of cases it should be taken slightly warmed (100° F.).

Meat can be given cooked rare, or better still, when large quantities are to be taken, in the form of squeezed beef-juice. To obtain from the meat the maximum amount of juice, a meat-squeezer is absolutely essential. There are a number of good ones in the market, which range in price from four to twelve shillings. The best kind of meat from which to squeeze the juice is a thick round steak free from fat. This should be seasoned with pepper and salt, broiled over a brisk fire, then cut in pieces two inches square, and then put into the meat-squeezer. About eight ounces of juice can be obtained from each pound of meat. No heat should be applied to the juice, as the albumin would be at once coagulated and the juice rendered worse than useless. If the juice becomes cold and it is advisable to heat it, this can be best accomplished by placing the cup in hot water. It is necessary to go fully into the preparation of the beef-juice, because of its importance as one of the most essential items in the diet of phthisis.

417

Freshly squeezed beef-juice is the best of the artificial preparations of meat known, and the trouble of preparing it is well repaid by the marked improvement in the patient. Beef-tea should never be given in phthisis as an article of diet. The popular idea that it is nourishing is erroneous. Another nutritive and palatable method of preparing meat is in the form of scraped meat balls. The pulp is scraped from a round steak, either by a fork or by a meat-scraper. This leaves the fibrous material behind. The scraped meat is rolled into small balls and broiled over a quick fire, and served hot with pepper and salt, or Worcestershire sauce.

Scraped meat may also be given raw, spread between thin layers of bread. To some this is a very appetising method. Many of the meat powders on the market, prepared specially for forced feeding, furnish us valuable aid a preparation from which I have seen marked benefit is the beef peptonoids. Also an excellent meat powder can be prepared in the kitchen, by cutting boiled beef into fine pieces, drying by means of a water bath, and grinding in a coffee-mill with the teeth set closely. The methods of administering these meat powders can be varied almost indefinitely. The powders can be added to soups, broths, milk-punch, milk, and may be taken in cold or warm water. The object in preparing the meat in the various ways suggested is to give the largest amount of albuminoids in the smallest compass, in the most palatable form, and in a way that will not disturb the stomach. I have known cases of phthisis to live for months on nothing but milk and meat prepared as above, and gain steadily in flesh and strength.

It can scarcely be questioned that in consumption alcohol is beneficial. Some attribute to it distinct curative power, and would recommend it in all stages. In my opinion it is one of those remedies which is capable of doing good if judiciously used, while at the same time it is quite as liable to do positive harm. It should never be used in the first stage; in the second stage only in small quantities with food, and preferably in the form of milk-punch in the forenoon and on retiring. The third stage is that in which it appears to do the most good, when taken in small quantities and repeated at regular intervals. In many cases, in all three stages, a glass of ale or porter twice a day with the meals improves the appetite, aids the assimilation of food, and causes marked increase in weight. For prudential reasons, it is often advisable to disguise the alcohol when given for any length of time

All consumptives pass through three distinct stages in regard to their digestive powers (1,) The period during which digestion and

appetite are unaffected; (2,) The period from the time when gastric disturbance first begins until the stomach refuses solid food. During this time septic infection is more or less constant, the fever intermittent, and loss of flesh generally progressive; (3,) The period from the time when solid food can no longer be taken without digestive disturbances until the death of the patient

These digestive stages do not necessarily correspond to the recognized physical stages of the disease, but as the diet of these stages varies it is practical to divide the disease in this way.

Ford Stage. As soon as the disease is diagnosed systematic dieting is commenced. This is often overlooked, although of such paramount importance. The digestive powers are normal, why limit the diet? some might ask. The object in the early stage of phthis is, as quickly as possible, to carry the amount of nutriment, and with it the resisting powers of the patient, up to the highest point. This cannot be done by means of the ordinary three meals a day forced feeding is absolutely essential. Well-defined rules as to diet should be laid down and rigidly adhered to.

Albuminoids and carbo hydrates should form the basis of the three principal meals. Meat should be caten rare and with all meals. If the patient is over thirty years old, a large amount of meat is essential and can be more easily taken. Two pounds of beef, at least, should be eaten in the twenty-four hours, or its equivalent in beef-juice. If poultry is served, the dark meat is preferable to the white. Sweet-breads are often tempting, and may assist digestion. Soft-boiled eggs for breakfast are advisable. A raw egg sucked from the shell will often relieve an untable condition of the pharyns. Butter should be freely used. Cream on cereals, or diluted with seltzer water, is of benefit in certain cases.

Milk should constitute the principal drink, and should be ordered between each meal, also a glass or more with the meals. In this way from two to three quarts can be taken in the twenty four hours. To avoid monotony the articles of diet, such as vegetables, etc., ordinarily taken with meals, should not be restricted. except that all indigestible articles, as rich pastries and sweets, should be avoided. The starchy and farmaceous foods should be taken sparingly. While the diet is largely nitrogenous, a sufficient proportion of carbo hydrates must enter into it. Fats and oils, especially from the animal kingdom, will furnish this. Butter should be freely used.

Cod-liver oil, which is really not a includine, but a food, should be taken in 3ss doses after each meal. Whether directly after the meal, or after a half-hour interval, must be decided according to the personal

idiosyncrasies of the patient. When it is impossible to give the pure oil on account of its taste, or because it causes indigestion or eructation, it is wise to give an emulsion of God-liver Oil, Pepsin, and Quinine, which can be readily taken by almost anyone. Often the pure oil can be taken when floated on whiskey. During its first stage the Phosphates are valuable, and it is advisable to give food which, owing to the presence of phosphates, is desirable. However, it must be remembered that to supply the phosphates in sufficient quantities, special preparations must be made use of The Hypophosphites should be given after meals diluted in water. In certain cases they are even more valuable than cod-liver oil.

Second Stage.—This is the period which will most try the physician's patience, and is the one in which systematic diet is absolutely essential. The relief from coughing, fever, and digestive disturbances experienced by this class of patients in following the dietetic regimen prescribed, is of great help to the physician, as a guarantee that his directions will be implicitly followed

In this stage the diet varies rather in the methods of preparing the food than in the food itself. The patient is still fed six times a day, but the meals are restricted. All foods should be offered in the most palatable form, and generally given finely subdivided. This is the stage when beef-juice and scraped beef are specially indicated. A small glass of the former in the middle of the forenoon and afternoon, with a cracker and a scraped meat bill or raw-meat sandwich for lunch or dinner, will materially aid nutrition. In many c ses, a glass of porter or ale with lunch or dinner, will be of a great benefit in increasing appetite and adding flesh.

Milk, plain with lime-water, or boiled, should be given early in the morning, at bed-time, and between meals, but I have learned by experience that this should never be taken at the same time with When milk disagrees with patients kumyss should be substituted, to the amount of three or four bottles a day. With the exception of the malt liquois with meals, stimulants during this stage are apt to do more harm than good Cough mixtures should never be taken, if they can possibly be avoided The syrups and naicotics which they contain are almost certain to produce digestive disturbances, in spite of the most rigid dieting Cod-liver oil will be required. but the greatest care must be used in its administration emulsion spoken of in the first stage will often be assimilated without any trouble. Especially in patients in middle life, the pure oil with whiskey will give the best results Other cases can take cod-liver oil in capsules. Still others can only take the oil in the mixture known

as Hydroleine. I feel so sure of the great benefit derived from cod-liver oil in this stage, that all known methods of administering it should be tried before it is abandoned. The duty of the physician who regulates the diet of phthisis does not end there. He must watch the condition of the stomach and intestines, that they may welcome and absorb the nutritive food furnished so often. Especially in this stage, he must make use of digestive ferments to aid assimilation, such as Pepsin before and Hydrochloric Acid or Pancreatine after meals. In this way the patient may be enabled to digest an amount of food hable, under ordinary circumstances, to cause dyspepsia. In cases of a catairrhal condition of the intestines, the systematic drinking of a half to a pint of hot water before meals will prove beneficial. It is especially important that the condition of the bowels be watched, and if possible a daily evacuation obtained

Third Stage - As persons who have reached this stage are generally hopeless cases, all that we can expect by diet is to prolong life under the most comfortable circumstances: much of the distressing coughing and vomiting from which these patients suffer can be controlled by attention to the quantity and kind of food. It is well to give up the idea of three hearty meals a day, and for a time, at least, feed the patient every two hours in small quantities. This is the time when the artificially digested preparations, such as the beef peptonoids, do so much good. Milk with lime-water can be alternated with them with advantage; often it is necessary to peptonize the milk, and sometimes it has to be given up entirely. Stimulants often repeated, say once in four hours, and in small quantities, generally help this class of cases a Stimulation and feeding should be kept up regularly during the night, when the patient is awake. Equal parts of Porter and Lime-water are generally well taken and often of great benefit. It is a well-known clinical experience, that patients in the last stages of phthisis have times of perfect freedom from any digestive disturbances; they can apparently digest almost anything without trouble. When these times come it is advisable not to restrict their diet, but to allow them anything they crave, remembering that on the least indication of dyspeptic trouble the restricted diet must be resumed. Fresh fruit in this class of cases ordinarily does no harm and is very refreshing. In those cases where the taking of food into the stomach is almost sure to excite paroxysms of coughing which induce retching and vomiting, it is advisable to stop all food and commence artificial feeding through the soft stomach tube. I cannot agree with some, that feeding through a stomach-tube is applicable to most cases. The natural repugnance which persons have to its use must limit its application to exceptional cases, to those whose physical or psychical disability prevents superalimentation by less distressing methods. Where it can be used the person can be made to digest and assimilate more food than he would be willing to, or could swallow, the patient is, as it were, stuffed to his utmost capacity. Credit should be given to Debove, who introduced this method and demonstrated what is meant by sufficiency of alimentation, namely, the extreme limit of assimilability.

Some of the most important rules which should govern the dietetic treatment of phthisis may be formulated as follows (1,) Never take cough mixtures if they can possibly be avoided, (2,) Food should be taken at least six times in the twenty-four hours, light funcheons between the meals and on actume, (3,) Never eat when suffering from bodily or mental fatigue or nervous excitement, (4,) Take a nap, or at least, he down for twenty minutes, before the mid day and evening meals; (5,) Take only a small amount of fluid with the meals: (6.) The starches and sugars should be avoided as also all indigestible articles of diet; (7.) As far as possible, each meal should consist of articles requiring about the same time to digest, (8,) Only eat as much as can be easily and fully digested in the time allowed: (9.) As long as possible, systematic exercise should be taken to favour assimilation and excretion, when this is impossible, massage or passive exercise should be undergone, (10,) The food must be nicely prepared and daintily served - made inviting in every way The following may serve as a sample of a diet sheet in the early stages of phthisis —

On Awakening—Eight ounces of equal parts of hot milk and seltzer, taken slowly through half-an-hom

Breakfast —Oatmeal or cracked wheat, with a little sugar and an abundance of cream, rare steak, or loin chops with fat, soft-boiled or peached egg, cream toast, half-pint of milk, small cup of coffee

Lunch, 10 a.m — Half-pint of milk, 01 small tea-cup of squeezed beefjuice with stale bread 12, noon · Rest of sleep

Mid-day Meal, 12 30—Fish, broiled or stewed chicken, scraped meat-ball, stale bread and plenty of butter, baked apples and cream, two glasses of milk

Lunch, 4 pm—Bottle of kumyss, raw scraped beef sandwich, or goblet of milk 5 30 pm Rest or sleep.

Dinner, 6 p in —Substantial meat or fish soup, rare roast beef or mutton, game, slice of stale bread, spinach, cauliflower, fresh vegetables in season (sparingly)

REFERENCE — Synopsis of article in the "New York Medical Record," March 24, 1894

# Præphthisis.

William H. Pearse, M.D., Ed.

Having recorded, during many years, the structural and functional peculiarities of phthisical patients, and having noted also the history which they gave of the time and order of the evolution of their symptoms, I have been compelled to regard the final lung disease as a minor part of the true FORM or nature of phthisis, and to group a great number of cases as prephthisis. Their study carries us to early, and often slight, deviations of function, which are the first symptoms of the future phthisis, or to hight deviations of structure, in a great many, who will pass into phthisis. Phthisis will thus be presented to us, not so much as a disease of the lungs, but as the last stage of an orderly series of deviations, and in its profounder nature, correlative with the different layers and differentiations of the blastoderm

Structural Bone System.—In some young men and women, of from sixteen to twenty, in phthisis, the thorax has not grown commen surately with the body in general, in others, from twelve to sixteen, the whole body has almost ceased to grow. Disturbance of the fundamental order or energy of evolution is seen, in clavicles unduly small, or, more often, unduly large, the hands, especially, show deviation in those who tend to eventual phthisis. Of ninety-one cases with disproportionately large hands, hity-three were in actual phthisis, thirty-eight were in prephthisis, of forty three males in phthisis, the right lung was affected in twenty-six cases, the left lung in seventeen cases; of ten females in phthisis, the right lung was affected in two cases, the left in eight. As far as the figures go, they indicate that the potential energy of lung segments and nerve differentiations fails, or is expended, in those with unduly large hands, more in the right lung in males, and in the left lung in temales.

Now—My records show a remarkable correlation between the nose, in its undue deviation from the central line, and in enlargement of the terminal cartilages, and phthisis. Nose unduly to left, twenty-six females in phthisis, fifty-nine females in præphthisis; fifteen males in phthisis, seven males in præphthisis. Nose unduly to right—forty-six females in phthisis, one hundred and nineteen females in præphthisis; twenty-nine males in phthisis, eight males in præphthisis. Other deviations from the normal evolution of the nose were, unduly large and laterally pointed terminal cartilages, terminal cartilages large and unsymmetrical on the two sides, narrow and sluggish alæ nasi, etc. Sometimes the whole superior maxillary and nasal regions are, as it were, twisted over on one side. Such deflection of the bone system must have its foundations in the unbalanced distribution of energy of the nervous system, and of the blastoderm and its layers

Skin System.—Deviations of the skin system which correlate with the eventual phthicis, are in the skin itself, the nails, hair, teeth, etc. The following tables represent about one thousand five hundred cases:—

TIATE	AND	PHTHISIS

			Much on Scalp	Scant &		Spiral on Thorax	Whisker on Women	Ill-o fined Bro	on	Eye- brows Heavy	brows
Male Female			9 14	4	=	_5	3	-	4	66 26	
		~44		HAIR A	ND PR	ÆPHT	HISIS			•	
Male . 6 Female . z8		6 18	2 -		=		- I		20 64	3 2	
				NAILS	AND	рнтні	sis.				
				Ridged	Cupped or Squat.	Large	Rour	nded		ın and attle	Oval or Almond Shaped
Male Female	···			-4	4 16	7		16 14		 3	9 22
				NAILS	AND P	RÆPHI	HISIS				
M ile Fem ile	••			22	4 42	8 9	2	5		-8	11 28

The heavy eyebrows, tending to meet in the mesial line, occur often in those who will eventually pass into phthisis. Transversely ridged nails will, in one generation, be atavic to phthisis in another generation. Structural and functional deviations occur in the same individual; we see thus that the future differentiations of the (so-far) primary blastoderm are not absolutely demarked, or, are not "fixed quantities"

Functional.—For years even, before any disease exists in the lungs, the young person may suffer an extreme sense of weakness, especially morning weakness; scant menses; anorexia—"all desire for food is gone", gastrodynia in varying degrees, a "lifeless" expression of countenance; cold feet at night, etc. We may fairly express the ensemble of disturbed and deficient function as a want of "energy" in protoplasm.

We may fairly seek to group the structural and functional deviations

of præphthisis in correlation with the epiblast, mesoblast, and hypoblast of Von Baer; but the play and variation of disturbed function and structure cannot be rigidly reduced to Von Baer's layers. We have to seek the full FORM or nature of phthisis, yet deeper in the biological evolution than even in the blastoderm and its layers.

Atavism.—Phthisis in one or more members of a family may be atavic to deviations, such as have been enumerated, of the bone, skin, or functions, in a previous generation, or in brothers or sisters. I cannot doubt that actual phthisis, having skipped several generations, yet these intermediate generations have shown the deep FORM of phthisis by atavic deviations of the bone, skin, and functional systems only

Heredity and Modifying Influences.—Heredity expresses the result of the harmonic "survivals" of the main energies which are concerned in the evolution of cells and living beings; heredity has its roots or conditions as widespread and deep, as is the biological evolution itself; the forces which make for heredity are thus greater than those involved in modifying influences, but both are of the same kind. It is established that certain conditions will cause the loss of energy in lung protoplasm, and thus the evolution of phthisis; and it is as clearly established, that certain other conditions of climate, mode of life, etc., will tend to maintain that "energy," and to be defensive against the molecular attractions of bacillary protoplasm.

We are carried into presence of the infinitely delicate changes and conditions on which both health and disease depend.

TREATMENT.—We apply treatment by outer and inner environment, ie, climatic or cosmic influences or energies, and by foods, the gentlest but constant tonic regimen, nurturing each plant according to its powers, giving energy to its protoplasm, by natural means, ie., by the application of those energies on which life depends, and in, and of which, life has evolved; change of air, implying change in the totality of environment, however small in degree, has a vast prophylactic power.

Foods—The most marked desires of the præphthisical are for onions, and for sour, salted, and smoked foods; butter is liked, but rarely any other fat; next to butter, the fat of pork is preferred. The desire for special foods expresses wants of every molecule; onions (benzene molecule) may hypothetically be held to give energy to protoplasm, so also may smoked foods—Salted foods and "sours" may aid to keep the primæ viæ pure, and thus hinder the slow poisoning of the system by intestinal contents.

REFERENCE.—" Provincial Medical Journal," Jan., 1894.

Synopsis — (Vol 1894, pp 24, 30, and 462) Oleum Succini as application to chest. Phenic Acid injection with Eucalyptol. R Eucalyptol, 10 chest. Flenic Acid, 10 parts, Vegetable Oil, 100 parts, or B Eucalyptol, 15 parts, Phenic Acid, 15 parts, Vegetable Oil, 100 parts, or Parts, or: B Eucalyptol, 20 parts, Phenic Acid, 20 parts, Vegetable Oil, 100 parts Guaiacol, 30 m daily, diluted with Almond Oil and injected hypodermically, or a dose of 20 m in Cod-liver Oil; 3ss may be taken three times a day for several months Hudeod gives Creasote per rectum if necessary R. Creasote, 3 grms.; Cognac, ro grms, Distilled Water, 200 grms, this is used once or twice daily after an evacuating enema if the latter is required To prevent selfinfection of intestinal tract Bismuth and Charcoal are best for gastric portion, Salol, Sodic Salicylate or Benzoate Camphor, or Ammonium Benzoate for the small intestine, and for the large bowel  $\beta$ -Naphthol or Charcoal. Saccharine is said to be the best disinfectant for the mouth Iodoform, Naphthalin, α-and β-Naphthols and Hydronaphthol have been proposed by Bouchard Carbolic Acid in keratin-coated pills is growing in favour as an intestinal antiseptic, Cresol, Thymol, Chlorophenol, Pyrocatechin, Pyrogallol, Eugenol, Tribromophenol may be of some service Salol and Benzosol (guaracol benzoate) have also been The Carbonates of Guaiacol, Creasote, Eugenol, Chlorophenol and Pyrocatechin are becoming popular, and the first named may be given in daily doses of 75 grains or more. Antiseptic inhalations are unsatisfactory. Inunctions of Iodoform and others may assist in the treatment of articular tuberculosis Intra-pulmonary injections are hardly The use of pocket and other spittoons is insisted upon, and their proper disinfection is essential

# PIGMENTATION OF THE SKIN.

Synopsis — (Vol 1894, p 474) To bring about peeling of the skin the following is applied several times a day \$\mathbb{R}\$ Resolven, \$\mathbb{Z}\$ jss. Oxide of Zino, \$\mathbb{Z}\$ jss. Pure Anhydrous Silica, gr xxx, Lard, \$\mathbb{Z}\$ yi, Olive Oil, \$\mathbb{Z}\$ yi. In three or four days apply \$\mathbb{R}\$ White Gelatine, \$\mathbb{Z}\$ j. Oxide of Zino, gr 45, Pure Glycerine at 30°, \$\mathbb{M}\$ 75, Distilled Water, \$\mathbb{Z}\$ j. Warm before application and protect by cotton wool afterwards To remove freckles \$\mathbb{R}\$ Corrosive Sublimate, gr vij, Distilled Water, \$\mathbb{Z}\$ yi, Sp Camphor, \$\mathbb{Z}\$ ss. Rose Water, \$\mathbb{Z}\$ v. Apply on compresses and follow up the peeling by simple ointment. Ointments containing Sulphur, 30 to 50%, or Caustic Soda, 3 to 5%, may be used, or \$\mathbb{R}\$ Hydrarg Ammoniat, Bismuth Subnitr, \$\mathbb{A}\$ apartes, 1jss; Olei Olivæ, partem \$\mathbb{I}\$, Ung Glyc, partes 4, or \$\mathbb{R}\$ Naphthol \$\mathbb{R}\$, partes v—x, Zinci Ox Pulv Amyli, \$\mathbb{A}\$ mates xijss, Vaseline ad parties 1. For pigmentation of pregnancy \$\mathbb{R}\$ Zinci Ox, gr iv, Hydrarg Ox flav, gr. xvj; Ol Ricini, Ol Theobrom, \$\mathbb{A}\$ \mathbb{E}\$ zinci Ox, gr iv, Hydrarg Ox flav, gr. xvj;

## PLEURISY.

Dr Aufrecht' thinks the good results obtained in recent years in the treatment of pleurisy depend in a great part upon the use of **Salicylic Acid.** But salicylic acid, not salicylate of sodium, must be used. The salicylate is weaker and produces marked secondary effects. When the pure acid is given in wafers, patients must always be admonished to follow the dose with a copious draught of water, in order to prevent a disagreeable burning feeling in the stomach

Aufrecht has adopted the following modification of his former method of giving the salicylic acid. If in the first eight days no diminution of the exudate occurs, do not conclude that the salicylic acid has proved useless, but stop it for a day or two, and then begin again the dose of 6 grammes (90 grains) a day, in divided doses of I gramme, and so continue the treatment for several days, with interruptions of a day or two

As soon as the salicylic acid treatment proves ineffective, the fluid should be withdrawn by aspiration. Fever is not a contra-indication to the operation, on the contrary, the earlier the operation is performed the sooner will the remainder of the exudate be absorbed. The patient should lie upon his back, and Aufrecht selects for the point of puncture the fourth or fifth intercostal space between the anterior and posterior axillary lines. After the operation, patients without exception, according to their age, receive from  $\frac{1}{6}$  to  $\frac{1}{4}$  grain of Morphine to allay the cough which ensues from expansion of the lungs. Subsequently a drachm of salicylic acid, on the average, is given daily for several days.

A local application for pleurisy2 -

By Guaracol pure 31 | Tincture of Iodine 3vi

Paint the whole of this liquid each evening on the affected side. The temperature quickly falls, an abundant perspiration takes place, and the effusion becomes soon absorbed

REFERENCE —""Therap Monats.," Sept. 1893; "Med Piess," Nov 11, 1893

Synopsis — (Vol 1894, p 475) Phenol Vesication in children, instead of cantharides blister to remove exudation. Salicylic Acid and its salts

#### PNEUMONIA

The combination of pure Ethyl Alcohol with Digitalis constitutes, in the estimation of Huchard, the ideal treatment of pneumonia when any active treatment is needed. He gives the digitalis in the form of its active principle—the crystallized digitalin—in the daily dose of I milligramme by mouth

Reiner concludes that the digitalis neither hinders the advance of the disease noi shortens its course, but rather protracts it. There is no favourable influence upon the temperature. The pulse is not diminished in frequency. The effect on the respiration is not regular enough to diaw any conclusions from

Reiner thinks that, instead of preventing collapse, it causes a slowly advancing one which lasts along time

Washburn takes the view that pneumonia can only be treated scientifically by striking at the materies morbi, destroying the pneu-

mococcus, or antidoting the pneumo-toxine in the blood, and, as we are as yet unable to do this, treatment must be palliative only.

Alcohol has always enjoyed the reputation of being a stimulant, but the writer disbelieves this, and is firmly convinced that this view of the question ultimately will prevail Symptoms of this are becoming more and more numerous every year. The most commonly observed effects of alcohol are all sedative.

Cunningham employs hypodermoklysis, or the subcutaneous injection of a saline solution, **Chloride of Sodium**, I drachm to the pint of water, with the object of producing reaction from the prostration and marked debility which are present in many cases, and he believes that its employment was followed by advantageous results, particularly in those cases which were suffering from apparent cardiac failure, which, he thinks, may be due to ante-mortem heart-clot. He believes that the addition of chlorides to the blood, which are under these circumstances passed out of the body too freely, does much towards preventing the formation of clots in the cardiac cavity, and he employs daily from 4 to 12 ounces in this way. Of course it is necessary that the salt solutions should be boiled and the operation performed in an absolutely aseptic manner.

We ought to abandon the use of alcohol in the condition in question, and extend our observations in other directions in order to ascertain whether we are in possession of a therapeutic agent from whose physiologic action we have any reason to expect aid in the accomplishment of the objects to be attained, namely, the increase of nervous sensibility and the elimination of the specific poison of the disease and the products of retrograde metamorphosis We have such an agent in **Strychnine**.

By its administration the sensibility of the nervous system is heightened in every part—not only the cerebro-spinal system, but also the sympathetic. It acts as a stimulant on the respiratory nerve-centre, upon the cardiac ganglia, and increases the sensibility of the nerves of special sense, touch, sight, hearing, and also increases the activity of the olfactory sense. It increases the mechanical movements of the stomach as well as the amount and acidity of the gastric juice, thus assisting the process of digestion, and at the same time there is an increased action of the kidneys, witnessed by an increase in the quantity of urine eliminated.

We have then, according to Cunningham, in strychnine a drug which in its action is diametrically opposed to alcohol, and one which is above all others, by reason of its physiologic action, indicated in the treatment of pneumonia.

As to **Yenesection**, it may be admitted that good may sometimes result in certain cases. The advocate of blood-letting has this in his favour, that with the blood withdrawn there escapes a certain amount of toxalbumin; and the amelioration which it is claimed often follows the operation is probably due to this fact rather than to any relief which the right heart may receive by reason of a temporarily reduced total quantity of blood in the vessels, the *modus operandi* of venesection in this case being the same as in unæmic intoxication, where marked temporary relief often follows the operation, by reason of the coincident removal of unæmic poisons with the blood. On this supposition the fact would be explained that venesection is indicated, as its advocates claim, in all stages of the disease

REFERENCES — "Therap Gaz.," Dec 15, 1893; Ibid, March 15, 1894

Synopsis — (Vol 1894, p 477) Baruch considers cold water treatment dangerous in children Sallard uses 8 to 10 Wet Cuppings at painful spot, later a few Dry Cuppings, 60 to 80 grms Rum or Cognac, diluted, 2 to 5 centigrms Thebaic Extract in pill for insomnia In alcoholic pneumonia full doses of Alcohol and 5 to 20 centigrammes Thebaic Extract Emetics and Cathartics if bilious symptoms predominate Sulphate of Quinine in malaria For children Chloral at night to quiet, or Warm Baths for quarter of an hour R. Dry Ext Quinquina, 4 grms, Tinc Balm-mint, 30 grms, Tinc Cinnamon, 8 grs, Malaga Wine, 90 grms, Syrup Bitter Orange-peel, 30 grms, M To be given in dessertspoonful doses in twenty-four hours as a cordial potion. Hypodermically Sodium Benzoate, 3 grms, Caffeine, 2 grms, Boiling Water, 10 grms, M I or 2 syringefuls a day For children R Potassium Bromide, 2 grms; Syrup of Chloral, 60 grms, Water, 60 grms, M A dessertspoonful in a cup of milk to which the yolk of an egg has been added. In children Quinine is useful, Digitalis, I to 4 grs, repeated once or twice and combined with Nitro-glycerine, 500 to 100 gr, Sodium Nitrate, 100 to 1 gr, or Acoust Tincture, 1 m every one or two hours if pulse is weak Strychnine,  $\frac{1}{10}$  gr in twenty-four hours for a child one year old Ammon Carb, ½ gr to I gr every two hours Turpentine Inhalations, Chloride of Ammonium, gr 10 to 20 volatilised, and Camphor, gr 1 to 1 Sinapisms for pleural pain Opium to relieve cough In interstitial form Potassium Iodide and Digitalis internally. Iodine externally in late stages Pulmonary Gymnastics Hypodermic injection of Borax. Local application of Chloroform on cotton wool Atropine and Morphia injected, or Leeches. Internally Corrosive Sublimate, 5 to 8 milligramme doses in 3 ounces of water with a little alcohol Tartar Emetic Quinine and Serpentary are the best tonics Alcohol and Ether, or ethereal solution of Musk for rapid prostration Calcium Chloride, gr 5 to 15, every four hours in acute lobar form Petresco treats all acute uncomplicated cases with Digitalis from beginning For broncho-pneumonia Sevestre employs Calomel, I gr doses, for infants under six months For dyspnœa two or three injections of Ether or Caffeine daily, Dry or Wet Cupping or Sinapisms to relieve lung, in algid condition Dry Friction or Alcoholic Rubbing.

PRÆPHTHISIS. (See page 423.")

## PREGNANCY.

Synopsis — (Vol. 1894, p. 480) Strychnine as preparatory tonic, gr 1/10 t d and increased For vomiting, intestinal injections of 2 litres of Saline Solution, 25% Routh arrests vomiting by bathing cervix with equal parts Iodine, Iodide of Potash, Alcohol and Water To remove skin spots of pregnancy R Pure Oxide of Zinc, gr 1v, Yellow Oxide of Mercury, gr xvj, Castor Oil, Cocoa-butter, aā Zijss, Essence of Roses, gtt x M Ft ung and apply with friction twice daily

# PROSTATE (Diseases of the). E. Hurry Fenwick, FRCS.

Hypertrophy of Prostate.—F. A Davy, of Sheffield, suggests the use of rectal suppositories of Iodide of Potassium (gr 10) every night, believing that diminution of the size of an enlarged prostate resulted in one case from the employment of this drug

Jessop's Prostate Scissors—The scissors consists of a ring at the end of each blade, the smaller ring is made with a cutting edge and fits exactly into the circle of the larger one, the edge of which is also sharp. The scissors are passed through a suprapulsic incision and the projecting lobe of the prostrate is snipped away, either at once or piecemeal. They have also proved of service in the iemoval of vesical growth. They can be obtained from R. Rauschke, 35, Bond street, Leeds.

Suprapuble Prostatectomy — Mayo Robson² records twelve cases with two deaths — He submits that whenever a patient has no large amount of residual urine and can be made comfortable by the passage of a catheter at night, or night and morning, and where catheterism is well borne and not difficult or distressing, operative treatment is un necessary. In the presence of complete atony of the muscular coat of the bladder, operation is advisable if the atony be only of short duration, say a few weeks, but if the conditions have existed for many months the removal of the obstruction to the urinary out-flow, even if successfully accomplished, can probably lead to a very slight ultimate benefit. The presence of a large amount of residual urine associated with fair vesical contractility and not diminishing after regular catheterism, the patient being otherwise in fair health, is a decided indication for prostatectomy, unless the relief given by the catheter is considered adequate by the patient

Cystitis, associated with enlarged prostate, especially if catheterism is difficult and painful, is an indication rather than otherwise for suprapulic prostatectomy, as at the same time the bladder can be thoroughly purified and drained. The presence of a calculus or of calculous material associated with prostatic enlargement and residual urine, is an indication for suprapulic lithotomy followed by prostatec-

tomy, as at the same time it enables the bladder to be thoroughly cleared, the co-existing cystitis to be treated by drainage, and the obstruction at the neck of the bladder to be removed.

Mr Mayo Robson formulates the contra-indications to the operation as follows The presence of advanced kidney disease, especially if associated with greatly diminished excretion of urea, chronic atony of the bladder; glycosuma, well marked degeneration of the blood vessels, associated with general semile debility or other organic disease which would lender any major operation inadvisable, would lead the surgeon to seek to give relief by catheterism or simple perineal dramage rather than by a more serious operation

Castration for the Relief of Prostatic Obstructive Hypertrophy—Since White<sup>3</sup> suggested the operation of castration for the possible relief of obstruction due to an enlarged senile prostate, cases have been recorded in the literature and the result of the method given. They are all favourable. Many patients, there is no doubt, have been offered the chance of relief of urinary symptoms on the proviso of the removal of the sexual powers. Many have refused. Probably the male is more conservative than the female—Judging from the answers the collator has received from patients to whom the procedure has been suggested, the operation will not be received with much favour by the sufferer—There is obviously, however, a certain advance in the step recommended. Some modification of the technique may be necessary, and more knowledge of what form of case is suitable must be acquired

It will be wiser to recapitulate Dr White's arguments in favour of castration "If the analogy between uterine fibro-myomata and prostatic over-growth was a real one, castration might have the same effect upon the latter that oophorectomy does upon the former, and cause a shrinkage or atrophy which would result in the practical disappearance of the obstruction."

Hunter has shown that the prostate of the perfect bull is soft and bulky, whilst that of the castrated animal is small, flabby, tough and ligamentous Griffiths examined the generative organs of the pig, bullock, sheep and horse, cat and dog, after castration and found in each that the prostate had been transformed into a mass of fibrous connective tissue

Gruber had observed, says Griffiths, marked atrophy of the prostate in a man aged sixty-five who had been castrated in early youth Pelican says that the prostates in eunuchs are about the size of those found in children

Civiale has noted the fact that in doing a lithotomy on a man who

had undergone complete castration for the cure of double hernia, he found the prostate had practically disappeared

In the female, oophorectomy causes a disappearance of uterine fibromyomata and an atrophy of the uterus itself. Castration has the same effect on normal prostates of the dog, and of our own species. Will it affect the pathological prostate in the same way? To this important question the literature contains the following answers:—

F. Ramm, 4 of Christiania, records two cases with brilliant result.

Dr Francis Haynes,<sup>5</sup> of Los Angeles, California, writes, "Following the suggestion of Professor White, of Philadelphia, I have three times made double castrations in old men afflicted with prostatic hypertrophy. (I,) Operation eighty-four days ago in a case of two years' standing of moderate severity. The patient is practically cured; (2,) Operation forty-seven days ago in a desperate case, requiring catheterisation every two hours, complicated by intense cystitis and by morphinism acquired as a result of frightful suffering. With the most devoted nursing this old man has improved wonderfully. Cystitis has disappeared; one-third of the urine is passed spontaneously, catheter is used about four or five hours, morphinism has been cured; general condition good; (3,) Operation fourteen days ago. Incipient case; catheterisation almost impossible, because of the peculiar development of the prostate"

In a fourth case section of the vas deferens gave no definite results Fremont Smith<sup>6</sup> ablated both the testicles of a man aged sixty-nine who had had mild symptoms of prostatic hypertrophy for a year Seven and a half weeks before admission to hospital he had suffered from 11 regular fever, had difficult and painful micturition, and the urine was loaded with pus and products of decomposition. Attacks of retention were frequent. The smallest amount of residual urine was six ounces The depletion of repeated acute cystitic attacks, accompanied at each recurrence by excess of pus and septic fever, the harassing constant desire to urinate, and the necessary loss of sleep reduced his weight from 165 to 135 lbs He was castrated During the week following the operation the patient was catheterised twice daily end of that period he voided his urine, and in six weeks he was discharged cured His general condition was greatly changed He had no fever; his weight had increased, he had no retention or cystitis: the residual urine had diminished to three drachms; he passed his water only four to six times at night, and fifteen weeks after the operation he is reported "to have no trouble at all and no pain with his urine "

Dr. Arthur Powell,7 of Bengal, mentions a case of a man at sixty-five

who for months attended as an out-patient for the relief of prostatic retention. He developed a nodule in the right testicle, for which he was castrated. The left testicle was small and probably useless. The prostate diminished markedly in size, and he obtained much relief from his urinary trouble.

Meyer and Haenel<sup>8</sup> give the following case: A. P., aged seventy, suffering from enlargement of the prostate and ammoniacal cystitis, with fever and constitutional distuibance, prostate per rectum was size of a man's fist, lobes were equal and the surface smooth, catheterism very difficult and painful, residual urine 4 to 5 ounces; was castrated on 16th May, 1894. On the 24th May the prostate was found smaller; 31st May one-third smaller, and markedly softer. July 31d, two thirds smaller, and 25th July almost normal size. A few days after the operation the painful and frequent micturition began to diminish, especially in the night. Catheterism was easier and the irrigation of the bladder rapidly subdued the cystitis, which before had proved unmanageable by this means, so that in three weeks the urine was normal The atony of the bladder remained unchanged for a fortnight, but after this date improvement commenced and the power of contraction returned On the 25th July, a little more than two months after the operation, the condition was as follows Prostate was soft and of nearly normal dimensions, only towards the right side is enlargement still noticeable. The stream of unine is full; the bladder emptying itself every four or five hours, urine is normal health is perfect

Bier's Operation for Hypertrophy of Prostate —Meyer's describes a case in which he ligatured the internal iliac arteries (Bier's method) for hypertrophied prostate in a man aged fifty-five, who had had marked urinary trouble for over four years, and whose urine was purulent. Twelve hours after operation the patient passed urine voluntary for the first time within six months. There was marked atony of the bladder, yet continuous retention never set in again. The prostate became smaller, and the length of the urethra was reduced from 23½ to 21½ centimètres in six months. The operative technique was, however, unfavourable, being productive of recurrent hæmoirhage from the left iliac, necessitating re-ligature and amputation of foot for gangrene.

A perusal of Meyer's case, of its difficulties, dangers, and untoward result, as regards gangrene of the foot, will convince anyone of the necessity for the need of especial surgical skill for this operation in very fat people. Moreover, it must be remembered that in a proportion of prostatics arterio-sclerosis is present.

REFERENCES—"Brit. Med. Journ," p 69, July 14, 1894; Ibid, p 62, July 14, 1894, 3"Annals of Surgery," 1893, "Centralblatt. fur Chrurgie," No 17, p 387, 1894, 5"Buffalo Med and Surg Journ," March, 1894, 6"Annals of Surgery," p. 52, July 1894, 7"Brit Med Journ," p 1099, Nov 18, 1893, 8"Centralblatt fur Hain und Sex Org," Band v, Heft 7, 1894, 9"Annals of Surgery," July, 1894

Synopsis —(Vol 1894, p 486) Ichthyol Suppositories, eg, 0.75 of ichthyol to 2 o or 2.5 cacao-butter. In gonorrhœal cases, a 10% solution was injected into the rectum

### PRURIGO.

T Colcott Fox, MB

Hatschez<sup>t</sup> has tried the effects of **Massage** in Kaposi's wards. He used **Effleurage**, and commenced on the limbs next the trunk, and little by little advanced down the limbs. The frictions were energetic and centripetal. At first each limb was massaged from 10 to 15 minutes, and afterwards the time was reduced. Itching was relieved, but the time required varied. With this the effects of scratching disappeared. The employment of vaseline in the massage was valuable. The prurigo was not cured, but massage decidedly relieves the itching, and this he thinks is due to the resolution of the exudation.

Spiegler recommends a 5 to 10 per cent. ointment of Sulpho-phenate of Sodium, with equal parts of vaseline and lanoline as a base

Iwanow<sup>2</sup> holds that piurigo demands an *increase of fat in the duet* For small children he gives a tablespoonful of lard in hot milk. To old children he administers cod-liver oil, increasing the quantity until they can take 2 to 4 tablespoonfuls daily. This must be kept up for months, and, if possible, one to two years. To allay itching, he orders after a warm bath the application of carbolic acid 50 per cent, acetic acid 10 per cent, in distilled water or glycerine. The baths are given once or twice a week, and the application rubbed in two to four times daily. When the itching is relieved he uses simple glycerine. To prevent relapses the treatment should be continued for years

References — " Aichiv f. Deim , v Syph ," 1893, p 931 , " Wiestiick Hygieny i Mediciny," vol xv , No 1, 1893

#### PRURITUS.

T. Colcott Fox. M B

Pruritus is apt to prove such a troublesome symptom that we refer again to Bronson's valuable papers -

- (1,) The patient must exercise will power to refrain from scratching, and adopt other means, as firm pressure or stroking. Scratching however is beyond the control of the will power in the state of half sleep, and moreover it becomes a habit and unconscious
- (2,) Irritating contacts of all sorts should be most scrupulously avoided, eg, the clothing should be cotton, linen, or silk

- (3,) Avoid immoderate temperatures whether of heat or cold, and especially of sudden changes, which are apt to excite itching.
- (4,) Excitants of itching are frequently intracutaneous and incidental to the trophic changes characterizing one of so-called piuritic skin diseases. In such case the treatment of the itching is included in that of the disease of which the itching is a symptom Toxemiæ may be counteracted by diaphoretics and diurctics, disturbances of nerve terminals, directly transmitted from the interior, are best relieved by substitutive irritants.
- (5,) Where such measures fail we may have recourse to sed-Internally they are apt to be disappointing. They, and especially the narcotics, are also objectionable, because the degree of general sedation required to affect the skin is so intense, and because the depressing after effect on the nervous system tends to exaggerate the general hyperæsthesia, which is already essentially an atonic condition Nevertheless, the enervating effects of loss of sleep must be avoided by giving Sulphonal or some other hypnotic. Bromides in full doses are often indispensable. Cannabis Indica is a cutaneous anæsthetic and analgesic, and Gelsemium in large doses is useful in some cases (especially chronic urticaria) Phenacetin and Antipyrin have more effect on pain than itching Local sedatives are more satisfactory. They tend to depress vital action and are nerve-Salicylic Acid, Salol, Menthol, Thymol, Bichloride of Mercury, and especially Carbolic Acid, "the opium of the skin," belong to the antiseptic group. It may be noted that solutions in water are more apt to be corrosive than in oils or fats, and more easily absorbed into the general system They may be embodied in alcohol or in superfatted soaps Water solutions of carbolic acid, 2 to 5 per cent, of 121/2 to 25 per cent only or fatty application to moderate extent of surface, give best effects.

Bronson strongly recommends the following formula -

Other local sedatives, not in this group, are Cocaine, Cyanide of Potassium (3j to Oj of water), Chloroform 3ss to 3viij, Water with 3ss Glycerine, Menthol in various combinations, Camphor with an inert powder or combined with Chloral and diluted. Some of these are also substitutive irritants The application for several minutes of Hot Water, as hot as can be tolerated, is useful

A third class of remedies is called for by the special condition called by Bronson hypopselaphesia as distinguished from hyperæsthesia In the discussion which followed, Hyde pointed out that pruritus when circumscribed and unilateral may be relieved by applying substitutive stimulants to the corresponding side of the body. Corlett commended a 3 to 5 per cent aqueous solution of Resorcin. Morrow pointed out the excellent results of the Hot Water-bag applied to the spine Hardaway depends greatly on Quinine in 15-grain doses at night, or Vinum Antimoniale given in divided doses in the day, and on Pilocarpine, when the skin is harsh and dry. He uses carbolic acid as a spray Denslow values Ergot

Pruritus Vulvæ—Sanger thinks nearly all vulvitis pruriginosa (pruritus vulvæ) exogenetic, though some less severe cases are endogenetic (hæmogenetic). A temporary itching does not constitute the disease. Genuine pruritus vulvæ does not exist apart from changes in the skin (corium and nerve endings), although such changes may be scarce'y visible to the naked eye. Neurasthenia and hysteria may co-operate with exogenetic causes. Sanger's classification will be useful in unravelling the causes of such a troublesome malady, and in leading to a correct treatment.

## ENDOGENETIC CAUSES

- (1,) Hæmatogenetic includes substances found in the blood in certain diseases (icterus, chronic nephritis, diabetes mellitus) which cause itching by their action on the nerve endings. Some chemical substances (morphia, alcohol, iodoform, etc.,) act in a similar way when introduced into the blood.
- (2,) Cuculatory, e.g., passive congestion of the venæ pudendæ, of the hæmorrhoidal veins, or of the pampiniform plexus, caused by diseases of the heart, by pregnancy, by hæmorrhoids, or by retroflexion or tumous of the uterus
- (3,) Hæmatogenetic skin affections, as erythema, urticaria, herpes, and some forms of eczema which affect the papillæ directly or indirectly, by causing rubbing of the paits.

## EXOGENETIC CAUSES

- (4,) Secretory and Chemical—(a,) Excessive activity of the cutaneous glands of the vulva (hyperidrosis, seborrhæa); (b,) Continued contact with normal or decomposed urine, (c,) Pathological secretions of vulva, vagina, and uterus, gonorrhæal or desquamative vaginitis, cervical endometritis, cancer or tumours of the uterus; (d,) Catarihal and purulent discharges from the rectum This class of causes produces the most intense form of vulvitis prunginosa.
  - (5,) Parasitic.—(a,) Animal parasites . pediculi, oxyuris vermicularis,

- etc; (b), Vegetable parasites—leptothiix, leptomitus, probably also oidium albicans—Micrococcus uiæ and bacterium uræ as indirect causes—More specifically gonococcus, smegma bacilli and dirt bacilli, the various microbes of the skin and vagina; and, as causes of secondary infection of wounds produced by scratching, streptococci and staphylococci.
- (6,) Mechanical—(a,) Primary: masturbation; excessive washing and rubbing, the use of unclean or infected sponges, (b,) Secondary. rubbing, scratching, etc., of the affected parts.
- (7,) Thermal—The influence of temperature is illustrated by the increased itching when the patient is in bed, or in a warm bath.

He then considers the operative treatment, and gives a list of cases where operative measures have been tiled by others, and two cases of his own, in which he removed the whole of the external genital organs with good result, both as to primary healing and the cure of the disease

He concludes as follows -

- (1,) The partial or total extripation of the vulva is quite a legitimate operation which ought to be more frequently employed in chronic vulvitis pruriginosa which resists other treatment.
- (2,) There is no objection to the removal of the clitoris, especially in elderly women, since their nerve-endings have lost their specific sensory functions in the course of the disease.
- (3,) In younger patients, and in circumscribed cases of the disease, partial operations ought to be undertaken.
- (4,) In older patients, and in extensive disease, the whole vulva should be removed, and replaced by a plastic operation

More Madden also contributes a valuable paper and gives the following indications for treatment —

- (1,) If traceable to, or to any recognizable extent co-existent with, distinctly marked neurotic or hysterical temperament, our primary attention should be given to the abatement of the constitutional neurasthemia by nerve tonics and sedatives, such as the Hydrobromates of Iron and Quinine, the Bromides, and Hydrobromic Acid in combination with Valerian.
- (2,) If symptomatic of uterine cancer, surgical interposition, if practicable, affords the only effectual remedy, and, if not practicable, we must fail back on such palliative treatment as we have at hand
- (3,) If diabetes is present, the natural Salicylate of Sodium (Goodell) may be tried in full doses.
  - (4,) Locally, (a,) Secure complete asepsis of the affected parts

by frequent ablutions with hot water (120° F) and an antiseptic soap, such as coal tar or ichthyol lanoline soap, (6,) Immediately swab with an efficient germicide solution, as Corrosive Sublimate (1 in 1000), Boric Acid (1 in 25), Izal (1 in 100), Carbolic Acid (1 in 40), (c,) Then apply topical sedatives Madden finds Methylene Blue applied locally as a lotion, and exhibited internally in grain doses most serviceable, but as it stains the urine both methods are often exceedingly objectionable. The following are selected as valuable. Cocaine, 5 per cent in peppermint water, A cream composed of equal parts of Cocaine, Chloral, Menthol and Camphor in Paroleine, saturated solution of Boric Acid, Hydrocyanic Acid with Borax and Morphine in Carbolated Solutions of Camphor; Black Wash and Yellow Wash.

Pruritus Am -We select the following from the "British Medical Journal" Argent Nit, gis x, Spr Æth Nit, Aq Destill, aā 311 To be used as a paint three or four times weekly, or oftener. combined with cold sponging with carbolic water, and a carbolic acid ointment night and morning (Edgar Duke) A I in 1000 solution of Biniodide of Mercury in Iodide of Potassium (Illingworth) saturated solution of Boric Acid to be applied night and morning, or when the irritation is troublesome (Mosse) Puie Cocaine, gr iv, Ammonio-Chloride of Mercury, gr. xv.; Oxide of Zinc, 31. White Yaseline, 3x (Whitla) Quinine incorporated in a quantity of lard sufficient to make the application hold together Calomel 31ss stirred into Cerate Cetacei (made with less than the B Ph proportion of oil) I until cold (Davey) The application of a roll or pledget of fine soft, tarry Oakum (Davey) Hydrochlorate of Cocaine, gr 11; Sulphate of Atropine, g1 3/4, Acetate of Morphine, gr 11, Acetate of Lead Ointment ad 31

Beiger (quoted by "British Medical Journal") speaks well of the insertion of a piece of cotton wool soaked in Liquor Calcis Chlorinatæ If buining arises the plug should be removed, and the parts washed out with a similar lotion The following was D. Hayes Agnew's favourite prescription.—

By Zinc Sulphate | Alum equal parts
Mix and heat until the water of crystallization is driven off
For use add 51 to 51 of water and apply locally

It may be noted that Allingham recommends that a bone plug, as big as the forefinger, should be retained at night.

REFERENCES — Bronson, "New York Med Record," and "Therap. Gazette," 1894, Sanger, "Centralb f Gynakologie," No. 7, 1894; (quoted in "Medical Chronicle"), More Madden, "Occidental Med. Times," Sept. 1894.

Synopsis.—(Vol 1894, p 487) In cases accompanying heart disease and emphysema, Strophanthus,  $\pi$  6, twice daily Electric Souffle Resorcinol. Menthol, 5 to 10% in alcohol, or 10% in sweet almond oil, or 26% as dusting powder, or  $\frac{1}{2}$  to 3% in zinc paste

439

# **PSORIASIS.** T Colcott Fox, MB

A Neisser believes psoriasis to be a parasitic disease, though no micro-organism has yet been recognized as a cause. The treatment should be founded on this theory, and the action of approved remedies finds in it a rational explanation. Of tar, salicylic acid, pyrogallic acid, and chrysarobin, the most efficacious and satisfactory is unquestionably **Chrysarobin.** It never occasions nephritic or general troubles. The only drawbacks are the staining, and the inflammation it is apt to excite in the healthy tissues around the diseased patches. For big patches on the limbs, one can so adjust the dressing as to limit the action of the drug. Where the patches are small and disseminated, it is well to render the ointment more adherent and consistent, either by using a mixture of equal parts of vaseline and simple ointment, or of vaseline and lanolin (I to 2), or of a zinc paste. For example.

R Chrysarobin
Zinc Oxide
Pure Starch Powder āā 5 grms
Anhydrous Lanoline
Yellow Vaseline
āā 7 5 grms

Eichhoffs chiysarobin so ip powders are more active. Chrysarobin plasters and traumaticines are less effective than an ointment. Long or frequent baths are not necessary, though it is always necessary to cleanse all scales away. The production of free sweating is a very useful adjunct.

Assenic and iodide of potassium have but little curative power in psoriasis, nor has dieting or an anti-arthritic course with hydropathy proved of much service.

Where deforming arthropathies exist recourse should be had to Iodine Salts, Salicylic Preparations, and Lactic Acid.

A great amount of interest has been taken in this country during the year past in Byrom Bramwell's treatment of psoriasis by **Thyroid Extract**. This remedy has been widely tried, and the results published are somewhat conflicting. We give the originator's latest conclusions founded on the treatment of twenty followed out cases He regards it as the most valuable internal remedy yet discovered for this disease—

(1,) That in a very considerable proportion of cases the thyroid treatment produces a temporary cure, the eruption entirely disappearing, and the skin being left in an absolutely healthy condition.

- (2,) That in some cases (but they are exceptional) 1apid and immediate improvement 15 produced by small doses
- (3,) That in others, improvement is only produced after distinct symptoms of thyroidism have developed (headache, stomach derangement and vomiting, diarrhoea, marked acceleration of pulse, elevation of temperature, etc.) NB—The condition of the tongue and the general condition of the patient are more important therapeutic guides than the pulse. A rate of 120, or even 130, is of little importance
- (4,) That in some obstinate cases the disease ultimately yields to the administration of very large doses, continued for a long time
- (5,) That no case should be regarded as hopeless, unless distinct symptoms of thyroidism have been produced, and the largest dose which the patient can take without being markedly upset has been continued, after the production of distinct thyroidism, for at least a couple of months NB—There is often at first an apparent aggravation and extension of the disease, which is, however, only temporary
- (6,) In other cases of psonasis the thyroid extract seems to produce little or no benefit
- (7,) That in many of the cases in which the eluption is completely cleared off, and the skin left in an absolutely healthy condition, after the thyroid treatment, a relapse, sooner or later, occurs. Whether in cases of this kind the relapse can be prevented, and the skin kept in a healthy condition by the continued use of small doses of the remedy, his experience does not as yet enable him to say
- (8,) So far as his piesent experience enables him to judge, old-standing chronic cases, in which the skin lesions are stationary, are, as as a rule, more easily cured (although some of them only yield after very large doses) than recent and slighter cases in which the spots of eruption are small, and in which the disease is constantly coming and going, or in which it is actively developing.

Bramwell begins with small doses, because the remedy is a powerful one, and it is impossible to forecast how it will be borne in any particular case. The quantity is then gradually increased until distinct symptoms of thyroidism are induced. In many cases of psoriasis the administration of large doses (30, 40, or even more, five-grain tabloids per diem) is all important. Bramwell prefers the dry extract in the form of tabloids or palatinoids. That psoriasis is acted upon as here set foult there is little doubt, and the contrary experiences recorded may be ascribed to several causes. In the first place, there is a wide difference in the value of the preparations used, and in the next place but few observers have pushed the remedy like Bramwell, because it has not been convenient or right to do so amongst ambulant patients,

and Bramwell kept his severe cases in bed. The writer has given it largely to ambulant patients, and obtained a remarkable success, without any ill-effects on the general health, in his earlier cases. Later on he had a succession of more obstinate cases in which he could not press the dose, or where a stronger idiosynciasy seemed to exist. Children appeared to do best. It is certainly a remedy with which one must carefully feel one's way at the start.

Then arises the question, Is it a more efficacious remedy than many we already possess? The answer is, Ceitainly not, though such an addition to our resources is to be welcomed. Abraham's large experience (sixty-five cases) should be noted. It was, on the whole, unfavourable

Bayet finds that **Gallanol** (anilide of gallic acid) has a real effect on psoriasis. Its action is much weaker than that of chrysarobin, but it does not stain, has no perceptible odour, and can be applied to the head and face.

Barendt has also used it in children and young adults. He rubs in green soap (Germ Ph) at night, or to the face and scalp Hebra's spiritus saponis alkalinus, on moist flannel, for five minutes. The following day a hot bath is taken, and after two or three repetitions all scales are removed. Then a 2 per cent continent of gallanol in benzoated lard is rubbed in at night, and every fourth night a hot bath is taken. If the grease is uncomfortable, equal parts of Venetian talc, oxide of zinc, and starch are dredged on. The gallanol continent was gradually increased to strength of 12 per cent, and as improvement set in the hot bath and green soap were used only once a week. When the eruption has faded, a 2 per cent salicylic or  $\beta$ -naphthol continent in benzoated lard may be subbed in and arsenic administered

REFERENCLS—Byrom Bramwell, "Brit Med Journ," March 24, 1894, and "Brit Journ. Derm," July, 1894, Abraham, Med Soc, Lond., with discussion by Morgan Dockrell, Leslie Phillips, and others, "Brit Med Journ," Talfouid Jones, Ibid; Brooke, Ibid.; Limont, Ibid.; Canhell, "Therap. Gaz," Sept, 15, 1894; Jackson, Amer. Derm Assoc, May, 1894 (discussion by Hyde, Hartzell, and Stelwagon), Lustgarten and Fox, New York Derm Soc; Gordon Dill, "Lancet," Ménau, "Journ de Méd. de Bordeaux," June 10, 1894, Squire, "Brit Med Journ", Bayet, "La Clinique," Sept, 1893 (reported "Bit Med Journ"), Barendt, "Liverp Med. Chir Journ," July, 1894

Synopsis — (Vol 1894, p 488) Thyroid Gland Extract, 5 m doses thrice daily Gallanol Hydrastin, 10% ointment, Alumnol, 2½%. Alternating Currents Chrysophanic Acid, Creasote, Liquor Carbonis Detergens and Ammonio-Chloride of Mercury in an ointment Warm baths with liquor carbonis detergens or carbonate of soda, or both (3) to

gallon) Europhen Friction with 20% dried Ethylate of Sodium in Olive Oil Solution of Chrysarobin in Chloroform (r in 7) mixed with Oleum Deelinæ for scrubbing affected parts R. Oil of Cade, 15 to 10c grms, Soft Soap, qs, for emulsion, Neutral Glycerine of Starch, 9c grms, Salicylic Acid, 3% Chrysophanic Acid, 10% solution in Chloroform painted on 10% Naphthol Solution Internally, Arsenic, Potas sium Iodide in huge doses.

## PUERPERAL ECLAMPSIA.

Synopsis — (Vol 1894, p 489) Milk Diet as preventive, for convulsion Venesection, \( \)\forall xvj, followed by Chloral in strong patients Strontium Lactate, gr 15

## PUERPERAL SEPTICÆMIA. (See also "Fevers")

Synopsis — (Vol 1894, p 490) As uterine douches Creolin 2%, Carbolic Acid 5%, Thymol 1 in 1000, or Corrosive Sublimate 1 in 2000, followed in any case by douche of distilled or boiled water Irrigation with Lysol, 1 to 100, and swabbing out uterus with 15 volume Hydrogen Peroxide Solution and finally Corrosive Sublimate 1 to 5000 at 110° Fh Curettage, irrigation and application of Iodine Tincture to uterine cavity Stimulants, Iron, Quinine, and Strychnine Free purgation if peritonitis threatens Application of pure undiluted Carbolic Acid to uterine cavity For suppurative peritonitis, abdominal section and douching of peritoneum with Boric Acid Solutions. Pessaries containing Iodoform, 20 grains, used twice daily

## RAILWAY SPINE.

Synopsis -(Vol 1894, p 493) Rest-cure.

#### RECTUM.

Synopsis — (Vol 1894, p 493) B Ext Belladonna, gr 1 to 1, Cocain Hydrochlor gr & to &, Ol Theobrom, gr x, M et ft Suppos to allay spasm from irritable ulcer, or B Ext Conii, 31, Ol Ricin, 311, Ung Lanoline q s ad 311, M et ft Ung Smear over anus five minutes before a motion is expected, and also after evacuation Locally, Nitrate of Silver, gr 10 to 30 to 31, every twenty-four or forty-eight hours after using Cocaine, 4%, and followed by an ointment of Iodoform, 30 grs to 31, or Wax or tallow bougie introduced daily, after applying cocaine or belladonna ointment Incision and Dilatation Chronic inflammation treated by Carbolic Acid Enemata, 10 drops in two tumblers of very hot water 1% Salt Solution injections followed by injection of Olive Oil, 311, for rectal inflammation in children For cancer of rectum daily irrigations of 12 pints of 10 or 20% tepid solution of Naphthol, giving by mouth at each meal R Salol, Benzo-Naphthol, Soda Bicarbonate, aa gr v For one cachet

#### RENAL CALCULUS.

Synopsis — (Vol 1894, p 494) Piperazine. Glycerine internally, I to 5 cubic inches for a dose

#### RHEUMATISM.

Synopsis — (Vol 1894, p 500) R Salol, Ether,  $\bar{a}\bar{a}$ , 4 parts, Collodion 30 parts, M To apply to an inflamed joint,

## RHEUMATOID ARTHRITIS.

Synopsic — (Vol 1894, p 506) Iodide of Iron with small doses of Arseniate of Sodium Sulphur in small doses Cod-liver Oil.

### RHINITIS.

Synopsis—(Vol 1894, p 506) For ozæna cleanse with a steam spray of Soda Bicarbonate solution, or Alumnol solution, 5%, or Diaphtherin, ½ to 1% solutions As a snuff for chronic rhinitis B. Menthol, Citric Acid, Lithium Carbonate, Powdered Benzoin, āa partes æquales Sig —5 or 6 pinches daily for each nostril For insufflation in ozæna B. Sodii Benzoat, Iodoform, āā Jij, Picis Liq, gtt v, M. Ft pulv. Insufflate daily.

#### RHINOSCLEROMA.

T. Colcott Fox, M.B.

Ducrey has written an important memoir founded on three Italian cases of rhinoscleroma, or, as he suggests, infectious scleroma of the respiratory passages. Extension by continuity of tissue is the common mode of progression, but the origin of separate centies by autoinfection cannot be excluded. Microscopic and bacteriological examination is advisable for a sure diagnosis. A special micro-organism gives rise to a specific granuloma. Laboratory animals are refractory to inoculation of diseased tissue or pure cultures, but sometimes definite results appear to be reached.

The best treatment is the complete surgical removal of the diseased tissues. No relapse occurred in one case. If the disease be too extensive for this, parasiticides, as Sublimate, Phenic Acid, or Thymic Acid, should be used after partial ablation.

Stoukowenkoff<sup>2</sup> has successfully treated a case by injections of Fowler's Solution, at first I per cent, gradually using to I2 per cent. The complete cure was obtained at the end of fifteen months, after two hundred and twenty-two injections

REFERENCES—Ducrey, "Giorn Ital d mal ven. e della pelle," Nov, Dec, 1892, p 433 and 510, March and June, 1893, p 83 and 279, Breda, Ibid., Sept, 1893, p. 402, Stoukowenkoff, quoted in "Ann de Derm et de Syph," 1894, p 854.

ROSEOLA. (See also "Measles" and "Scarlet Fever.")
ROTHELN.

Dr Atkinson thinks that besides the early subsidence of the initial fever and the enlargement of the glandulæ concatenatæ, the periods of incubation and infectivity will give some assistance in distinguishing rotheln from scarlatina. The report of the Clinical Society on this subject says, with regard to rotheln, that the twelfth to the eighteenth day after the cessation of exposure is the time at which the rash is most likely to appear in epidemics in schools when a patient is isolated as soon as the tash appears. In a few cases the incubation period is

only eight or nine days, and in a small number it may be only five or six days The quarantine period must not be less than twenty-three days As regards infectivity, the patient is infectious two or three days before the rash appears, and while it is out, but it diminishes rapidly and altogether ceases in a week in mild cases, and in the more severe when desquamation is over. In the former class isolation for a week, to be followed by a bath and disinfection of clothes, is recommended, while in the latter it is advisable for isolation to be continued for two weeks, to be followed by disinfection, in order to prevent the spread of the disease in schools The infection does not appear to be long retained by clothes With respect to scallet fever, the report remarks that the incubation period lasts usually between twenty-four and seventy-two hours, occasionally it is less than twenty-four hours. It is very doubtful whether it ever extends to eight days. When infection is conveyed by milk the period would seem to be two days or less The infection period lasts from the onset of the symptoms until desquamation is complete, and may still exist for eight weeks after the commencement of the disease It is readily preserved and conveved by fomites. A person who has been exposed to the infection of scarlet fever may, after disinfection of the clothes and other fomites. be pronounced to be safe if at the end of seven days he is free from fever and sore throat.

REFERENCE —"Lancet," Sept 23, 1893.

#### SALPINGITIS.

Synopsis — (Vol 1894, p 507) Mild applications of Iodine and Glycerine, equal parts to vaginal vault, accompanied by Glycerine Tampons Daily warm Sitz Baths at 105° Fh for half an hour, and Blisters over the affected parts

## SARCOMATOSIS CUTIS.

Synopsis.—(Vol. 1894, p 507) Arsenic internally

### SCABIES.

Synopsis — (Vol 1894, p 508) R. Sulph Sublimat,, ξj, Bals Peruv, ξj, β-Naphthol, grs xxx—lx, Adip Benz vel Ung Petrolei ad ξiv For rubbing in adults R. β-Naphthol, 15 grms, Black Soap, 50 grms, Chalk, 10 grms, Lard, 100 grms, M Benzine R. Hyposulphite of Sodium, Distilled Water, āā ξvj Apply the lotion, allow it to evaporate, and before going to rest apply R. Dilute Hydrochloric Acid, ξiv, Distilled Water, ξvj

#### SCARLATINA.

Synopsis—(Vol. 1894, p 509) When peeling begins, use tepid sponging and a superfatted hard soap containing Resorcin and Salicylic Acid, 3% of each Carbolic Acid, gr 2, twice daily as a prophylactic Digitalis and Ammonium Carbonate said to be the safest drugs Thorough cleansing of throat every half hour Hydro-Naphthol Soap (5%) hastens peeling and prevents contagion.

SCARLET FEVER. (See "Fevers.")

SCIATICA. Allan McLane Hamilton, MD, New York.

Weir Mitchell's' management of this disease is thus summarized. "In a mild case (a first attack), having made a careful search through the organs and secretions, and provided for any obvious constitutional disorder, he orders rest in bed, constant and prolonged till recovery is assured, and Dry Cups used thoroughly and early If cupping be not used, he orders mustard, a stripe at least three inches wide, from notch to ankle, or, at least, to the knee If these means fail, he at once goes to the means he employs in chronic cases He uses a film bandage, made of pure flannel, from foot to groin, re-applied twice a day The leg is slightly bent at the knee, and kept extended at the thigh, and in this position is secured to a right side-splint from axilla to ankle After a few days the joint-angles are slightly changed at each dressing Still later, as the pain fades, the joints are mildly and passively exercised whenever the bandages are renewed. Usually three weeks pass before he can begin to abandon treatment: and a much longer time is required in old cases. Later, he takes off the splint in the day, but leaves the bandage on; at night he replaces the splint Finally he gives up the splint; and, with the presence or absence of pain as the sole guide in like manner omits the bandage. first in the day, and afterwards at night Meanwhile, with Cod-liver Oil, Iron, good diet, care of the bowels, and forbidding effort at stool. he carries the patient through When the pain is quite gone he uses Massage once a day before replacing the bandages. Points of persistent pain, near the close of this course, he treats by counter-irritants When the patient is allowed up, he permits him first to stand, then to walk, with the aid of crutches He does not permit sitting during the first week that the patient is up

"In the true sciatica cases, which defy medical means, he employs Nerve-Stretching, followed up by the roller and splint-rest. Until he can permanently ease the ache, he occasionally uses narcotics He says Cocaine is the best, in from ¼ to ½ grain hypodermically"

Lawrence<sup>2</sup> recognizes the use of **Nitro-glycerine** in obdurate cases of sciatica, using I diop three times a day of a I to 100 solution, gradually increasing the dose. In a case reported, relief was immediate, the patient being able to resume his trade (carpentering) in ten days without any remnant of the trouble

References — "The Med News," (Philad) vol 1x111, No 1, 1893, 2"Med Press," Jan, 1894

Synopsis.—(Vol 1894, p 511) Acupuncture Dry Cupping in mild and early cases, followed by free application of Mustard and Molasses.

If this fails Bandage from foot to groin with Side Splint, apply passive motion, and after about three weeks use splint only at night. Avoid sitting Either standing or walking must be adopted. Tonics and Enemata to prevent straining at stool. Repulv. Opii. Pur, grs. xij., Pulv. Ipecac. Ver, gr. xij., Ext. Cascar. Liq., qs., Sod. Salicyl., 3iss., M. Ft. Pil. 12. Sig.—1 or 2 for a dose. Nitro-glycerine, MJt. d. of 1% alcoholic solution, increasing dose up to 5 M.

## SCLERODERMIA.

T. Colcott Fox, M B

Several authors record cases of sclerodermia greatly benefited by prolonged Massage. It must be borne in mind, however, that there is in many cases a natural tendency to recovery

Schutte, encouraged by a former success, treated a wide-spread sclerodermia by prolonged Sitz Baths, followed by massage, with 5 to 10 per cent Salicylic Yaseline. The disappearance of the sclerodermia was probably in great measure due to the treatment Sims used Glycerine. Allan Jamieson considers that massage is valuable in diffuse symmetrical sclerodermia with induration. Beer, of Vienna, reports further successes The Faradaic Current was used to combat muscular atrophy

Boisseau du Rocher treated a case of sclerodermia of the dorsum of the foot with **Static Electrical Discharges** of high potential and powerful delivery by means of a special apparatus.

REFERENCES — Schutte, quoted "Ann de Derm et de Syph," 1894. p 555; Jamieson, Edin Med Soc, Sims, West Lond Med Chii Soc, Beer, Vienna Med Soc, Boisseau du Rochei, "Jouin de Med. de Paris," vol vi, No 6, p 70, 1894

## SCROFULA.

Synopsis —(Vol 1894, p 512) Creasote, gtt j t d, increased to  $7\frac{1}{2}$  or 10½ grs daily, given immediately after a meal, and continued many months

## SEA SICKNESS.

Synopsis — (Vol 1894, p 513) Hot Foot Bath Placing hands in hot water, and ice on head and spine, if hyperæmia be present Caffeine, Antipyrine or Bromide of Sodium by rectum In anæmic cases, Atropine and Nitro-glycerine simultaneously given Strychnine and Natro-benzoate of Caffeine Ergotin Whiskey and food per rectum Horizontal position Copious draughts of Hot Water Frequently repeated and small doses of Creasote with Lime Water and infinitesimal doses of Ipecacuanha Oxalate of Cerium, 5 grs hourly for three or four hours Bromide of Sodium Equal quantities of Chloralamide and Bromide of Potassium—18, Chlorobrom—dose 5ss to j Bandaging eyes, together with recumbent position

# SINUS-PHLEBITIS (Otitic).

W Milligan, M D.

Any of the venous sinuses in immediate relation with the temporal bone may become thrombosed, as the result of infective middle ear disease. The relation of the sigmoid sinus to the mastoid antium, mastoid cells, and middle ear, account, however, for its more frequent implication The petrosal, the cavernous, and even the bulbus venæ jugularis, may be similarly affected either from direct transmission of pathogenic organisms from the middle ear, or indirectly as the result of the extension of the thrombic process from an already affected sigmoid sinus. As a rule septic thrombosis is the result of chronic infective disease of the tympanic mucous membrane and its adnexa, although it may occur as a complication of acute inflammatory affections of the mouth, pharynx, tonsils, etc, where rapid extension to the middle ear has taken place per tubam In the majority of cases previous destruction of hone has occurred. The walls of the sinus are then in immediate relation with a carious or necrosed area of bone. while frequently a fistulous track will be found leading to the mastoid antrum of middle ear. They may be thickened and inflamed, or broken down and ulcerated. In raie cases, however, the infective organisms have been carried along the course of the small venous or lymphatic radicles which exist between the mucous membrane of the middle ear and the walls of the lateral sinus, no bone lesion being discoverable The course of sinus thrombosis is somewhat irregular

Death may take place rapidly from exhaustion and collapse, or pyæmic metastatic deposits may occur in the lungs, liver, kidneys or joints, and death ensue from gradual loss of strength and marasmus A fatal issue may also be induced as the result of the toxic effect of the pyæmic blood upon the central nervous system, or simply as the result of hyperpyrevia

Septic thrombosis may be assumed to exist if in the course of a chronic supputative middle ear catarih there is a sudden cessation of discharge, accompanied by persistent pain in and around the ear, a high temperature with marked fluctuations, frequently repeated rigors, vomiting, rapid pulse, and constant headache.

Ballance<sup>1</sup> states that the following group of symptoms occurring together are pathognomonic of the disease (1,) A history of a purulent discharge from the ear for a period of more than a year, (2,) A sudden onset of the illness with headache, vomiting, rigors, and pain in the affected ear, (3,) An oscillating temperature, reaching 103°—105° F and then diopping below 100° F., (4,) Vomiting repeated day by day, (5,) A second, third, or more rigors, (6,) Local ædema and tenderness over the mastoid, or in the course of the inteinal jugular vein; (7,) Tenderness on deep pressure at the posterior border of the mastoid and below the external occipital protuberance, (8,) Stiffness in the muscles of the back or side of the neck, (9,) Optic neuritis

Where extension has taken place along the emissary veins, infiltia-

tion and induration of the subcutaneous connective tissues will be found. Infective sinus-thrombosis may, however, co-exist with other intracranial lesions, eg, abscess, or meningitis

In such cases the symptoms due to the thrombic process usually gain the ascendency, and may mask other concomitant lesions. In certain cases, the difficulty of determining which is the predominant lesion is so great that it is advisable in every doubtful case of serious intra-cranial trouble, secondary to ear disease, to follow a definite plan of operative procedure. Urban Pritchard 2 recommends the following modus operands.—

- (1,)  $\bar{\text{To}}$  thoroughly open the mastoid antium and exploie the mastoid cells.
- (2,) Failing to find sufficient evidence to account for the whole of the symptoms, to enlarge the wound in the skull so as to expose the middle and posterior cerebral fossæ above and below the lateral sinus, which should then be explored by means of a hypodermic syringe At the same time subdural abscesses should be carefully looked for
- (3,) If a clot be found in the sinus the internal jugular vein should be tied, the sinus opened and cleared of its contents.
- (4,) If there be any suspicion of cerebial or cerebellar abscess, exploratory puncture should be made above and below the sinus, and pus if found evacuated.

The prognosis in such cases is necessarily grave, but many lives are now saved by timely operative interference

Following the suggestion originally made by Hoisley, that the internal jugular vern be exposed and tied so as to prevent the dissemination through the system of the disintegrating and septic clot, many surgeons at home and abroad have operated with success primary source of the lesion should be first dealt with Where this is due to the presence of chronic suppurative middle ear disease, the mastoid antrum should be opened and all purulent debris cleared out The middle ear should then be opened up according to the Schwartze-Stacke method, granulation tissue and carious ossicles removed, and thorough cleansing with antiseptics performed. The bony covering of the sigmoid sinus should now be removed, either by means of a chisel, gouge, or Hoffmann's bone forceps, in such a way as to expose from \frac{2}{4} to I inch of the vertical portion of the sinus Absence of pulsation and a feeling of resistance suggest the presence of a clot, absence of pulsation and a feeling of fluctuation suggest that the clot has become broken down. To ascertain the contents of the sinus a hypoderniic needle may be inseited The next step is to expose the jugular vein in the neck, place two ligatures round it and tie between

The sinus is now split up for at least an inch of its extent, the distal end from which free bleeding may take place packed with iodoform gauze, and the peripheral end cleared of its thrombus by means of a small Volkmann's spoon. Free scraping is at times necessary, as the clot may have become intimately adherent to the inner wall of the sinus. A warm solution of corrosive sublimate (1 to 2000) is now to be syringed from the peripheral opening of the sinus to the wound in the neck (the upper ligature upon the vein having been removed), and so all débris washed way. After careful cleansing with warm antiseptic lotions, the parts should be dusted with a powder consisting of equal parts of rodoform and boracic acid powders, packed with rodoform gauze, and sutures inserted. In favourable cases the process of repair goes on rapidly. The patient's strength must be maintained by means of a nourishing diet, tonics, such as quinine, non, phosphorus, etc., being given at the same time

REFERENCES.—1 "Lancet," Nos. xx and xx1, vol 1, 1890, 2"Archiv. of Otology," vol xx111, Nos 1 and 2

#### SMALL POX.

Synopsis — (Vol 1894, p 514) Cocaine, 4% solution, I drop for every year of age four times daily, or pastilles containing 24 gr with or without Pepsin, or 2 gr hypodermically Boric or Salicylic Acids locally A mask consisting of three layers of Boric Lint soaked in Boric Lotion, covered by waterproof and retained in position by gauze bandage, has been used to abort pustules

#### SNAKE BITE

Synopsis—(Vol 1894, p 514) Strychnine hypodermically for viperine poisoning—In scorpion poisoning, Chloroform Stupes relieved pain Hydrate of Chloral pure, rubbed on the part, relieved also, and was more permanent—Menthol-camphor and Butyl-chloral-camphor were also found efficacious

#### SPERMATORRHŒA.

Synopsis — (Vol 1894, p 515) Cold Sitz Baths from five to twenty minutes daily, at bed time from 50° to 60° Fh These are contra-indicated in sexual irritability, when hot baths are substituted, 90° to 98° Testicular Juice injected hypodermically Cimicifuga Tincture, 10 to 30 drop doses after meals  $B_i$  Ext Aloes, gr 11, Ext Belladonnæ, gr 11, Ext Hyoscyam , gr 11, Pulv Camphoræ, gr 11, M Ft Pil 12 Sig—1 pill every night

## SPINAL ACCESSORY (Spasm of).

Allan McLane Hamilton, M.D., New York

Gerhardt reports the following case, the patient being a man sixtytwo years old who had years before been injured by a falling building, and had since had some tiemor of the head. He is described as holding his head obliquely with the right ear drawn toward the shoulder, the chin projected forward and turned somewhat upward and to the left, and the right shoulder somewhat elevated. The right sternocleido-mastord, and upper part of the right trapezius muscles were unduly prominent, and hard to the feel. There was constant anteroposterior rocking motion to the head. The right vocal cord in the abduction of inspiration made a much greater excursion than the left, and showed a series of short, interrupted, clonic movements. By placing the finger over the lower part of the thyroid cartilage on the right side, corresponding movements could be felt. The right posterior palatine arch stood higher than the left, the uvula was directed slightly toward the right side.

The unusual involvment of the laryngeal muscles in spinal accessory spasm tends to verify the present belief that the nerves of the laryngeal muscles take their origin in the accessory nucleus

The almost purely inspiratory occurrence of the clonus speaks for the separation of the breathing and voice function in the course or origin of the laryngeal nerves

REFERENCE - "Munch Med Woch," Maich 6, 1894

SPINE (The Typhoid). Allan McLane Hamilton, MD, New York An interesting condition which occurs as a sequelæ of enteric fever was originally described by Gibney in 1889, and by him called the "typhoid spine," It is essentially a peri-spondylitis, an acute inflammation of the periosteum and the fibrous structures which hold the spinal column together Acute pain was produced by the slightest movement, either lateral or forward, and there was no febrile disturbance or neuralgia. Others have recognized this rather common sequel of typhoid fever, and Osler is of the opinion that periosteal troubles are by no means rate symptoms, but may develop a long time after convalescence has been well established Pain may be found about the sternum, ribs, and inflammation may advance to suppuration fact, this is the rule He has known of several examples where periosteal swelling disappeared without any formation of pus He, however, differs from Gibney in regard to the duration and intensity of the pain which the latter considers so important an indication, and of which he cannot conceive Ostler's patients were, as a rule, neurasthenic, and he is of the opinion that some of them were simply examples of an exaggerated condition of spinal irritation, or hysterical spine, and, in fact, his experience has led him to think that a variety of disorders of a hysteriform character, with a lowered will power, exist without any periosteal inflammation whatever

REFERENCE.—"Brit Med Journ," Oct 7, 1893, p 780.

## SPLEEN (Surgery of).

A W. Mayo Robson, FR C.S.

Splenedomy—The conditions for which the spleen has been successfully removed, include cases of rupture, of "movable spleen," and of simple hypertrophy with or without concomitant anæmia. On the other hand splenectomy in leukæmia has been almost invariably fatal, and is an unjustifiable operation.

Dr. F Kammerer records a fatal case of splenectomy for leucocythæmic enlargement. The patient died on the table from shock. The spleen weighed seven and a half pounds. The tendency to hæmorrhage was very marked, and the adhesions were numerous and very vascular.

Ceci³ records two successful cases of splenectomy. The first was one of malailal hypertrophy, which had been treated medicinally without good result, the second a child, aged eleven years, had suffered from essential idiopathic hypertrophy for two years. Both were anæmic. Good general health was regained in each case.

From an analysis of one hundred and forty-five reported cases of splenectomy he deducts a general mortality of 51 6 per cent. The percentage mortality in leukæmia is 91 4, and in essential idiopathic hypertrophy 11 5.

James P Waibasse<sup>4</sup> refers to a case of idiopathic hypertrophy of the spleen operated upon in Czerny's clinic, which after splenectomy, developed an interesting condition of the blood. The proportion of white to red corpuscles had been normal, but on the day following operation the ratio was 1 in 60. Gradually this excess of white cells subsided, and the ratio again became normal (1 in 500) at the end of four months.

Vulpius regards, of very great importance, the fact that eleven observations showed that after splenectomy there was a more or less rapid and pronounced increase in the number of leucocytes. In two cases this could not be assigned alone to the splenectomy, for the patients were suffering from leukæmia, which continued to progress, in one case with very great rapidity.

Hereafter, every operation should show, by careful examinations of the blood, whether the multiplication of leucocytes is invariably the rule or is simply a coincidence in these cases

Dr. Murphy<sup>5</sup> publishes the notes of a successful case of splenectomy for enlargement of the spleen. The patient, a woman aged forty-five, gave a history of influenza two and a half years previously, followed by paralysis of speech, and of the right hand. For more than a year she had been aware of a painful swelling in her left side; in addition she complained of loss of weight, shortness of breath, and cyanosis

for several months There was no leucocythæmia The outlying poitions of the pedicle which were thin and broad, measuring about five inches, were secured in separate portions by seven silk ligatures, the central portion, which contained large vessels, was secured by the Staffordshire knot. Seven weeks after the operation the patient expressed heiself as being in better health and spirits than she had been for two years. The spleen weighed one and a half pounds and had an abscess cavity near the lower end, containing about half an ounce of pus, the abscess was probably the result of infarction

D1 W J Conklin<sup>6</sup> reports the successful extripation of a hypertrophic spleen, the pedicle of which was twisted through three complete turns

Three months previously a small ovarian cyst had been removed, but it was not thought advisable at that time to remove the spleen Recovery was complete, save for a troublesome tendency to drow siness No examination of the blood was made

Axial Rotation of the Spleen —At the General Hospital, Birmingham, on Jan 2nd, 1894, Dr Malins' dealt with a very interesting case, in which he removed the spleen, weighing two pounds five ounces. The patient, a woman aged thirty, was admitted two days previously with a tumour of the abdomen occupying a central position and dipping into the pelvis. There was some peritonitis present. The abdomen was opened in the median line, and a peculiar condition was found. The spleen, altered in shape and position, was rotated on its attachment for about half a revolution, it was dark coloured and much distended, and the vessels on the distal side of the strangulation were completely thrombosed. A prepared silk ligature was tied round the pedicle and the organ was removed. The abdomen, containing reddened fluid, was carefully sponged out and some adhesions of the omentum were tied.

The patient made an uneventful recovery, and left the hospital on Jan 25th, in good general health. No abnormal elements were found in the enlarged organ. Two days after operation, and again fifteen days after, the blood was examined and found practically normal.

On the 28th April the following estimate was made red corpuscles 4,840,000 per cubic m m; white corpuscles 30,000 per cubic m m, and hæmoglobin 50 per cent. The most remarkable point was the presence in the blood of fairly considerable numbers of large white nucleated corpuscles, varying in diameter from  $30\mu$  to  $50\mu$ , in which were contained several red-blood cells, in some, twenty or more. In individual ones the red corpuscles appeared to be undergoing a process of disintegration, while small masses of blood pigment could

be observed in those where the change was most marked. The last examination was made on May 231d, when a reduction in the number of red cells was noted, these having fallen to 3,300,000 per cubic millimètie, there being a still more marked number of leucocytes, 50,000 white corpuscles per cubic millimètie.

Trinkler° reports a case of solitary hydatid cyst of the spleen successfully treated by Volkmann's operation. The symptoms were those of dyspepsia extending over a period of two years. The hydatid thrill was easily obtained in the large tumour.

Trinkler strongly objects to aspiration, and refers to several cases where fatal peritonitis followed this practice.

Abscess of the Spleen -- Nolan9 in describing the following case. rem tiks on the difficulty of its diagnosis, and mentions that the cases recorded in medical literature, which resulted in recovery after operative treatment, only number five The patient, a woman, twenty-five years of age, six weeks after confinement, began to feel ill and feverish. Typhoid fever was suspected Suddenly she had an attack of acute pain in the left side, followed by difficulty in breathing On examination it was found that a pleuritic effusion had taken place in that spot, and that the spleen was greatly enlarged. There was, however, no tenderness. The diagnosis was now altered to splenitis, perisplenitis, pleuritis, and an operation was decided on. On the outer side of the left rectus a long incision was made, extending from the arch of the ribs straight downward A cavity was laid open, from which about a litre of pus of a dull brown colour and a faintly sweet smell The peritoneal cavity was not opened. After draining, the wound was plugged with jodine gauze Recovery was uninterrupted. and the pleuritic effusion was entirely absorbed. The entire absonce of pain was a remarkable feature of the case. The question whether the patient had really been suffering from typhoid fever or whether the development of the abscess was connected with parturition is impossible to decide. In both cases the proximate cause must be looked for in an infectious embolus.

REFERENCES—"" Lancet," May 5, 1894, 2" Annals of Suigery," June, 1894, 3" Il Policlinico," Aug 15, 1894, 4" Annals of Suigery," Aug, 1894, 5" Brit Med Journ," Nov 3, 1894, 6" Annals of Surgery," Oct, 1894, 7" Lancet," Jan 13, 1894, and Ibid, Sept 15, 1894, 8" Rev de Chir," Feb, 1894, 9" Brit Med Journ." Suppl, April 14, 1894

#### SPRAIN.

Synopsis — (Vol 1894, p 527) Strapping the ankle and walking at once after injury. Salicylate of Soda, 51, in twenty-four hours.

# STEM PESSARY (On the use of the). Fancourt Barnes, MD

The stem pessary was introduced by Sir James Simpson as a means of treating certain cases of anteflexion of the uteius. Its mode of action is to stiaighten the flexed uteius, and maintain it in a normal attitude. It is therefore clearly unsuitable for cases of displacement of the uteius where the uterine axis is normal

Cases of anteflexion of the uterus may be divided into two groups First, the simple uncomplicated cases, second, the cases in which there are other associated pathological conditions of the pelvis. In the first group the anteflexion is the only pathological condition present, or there may be some associated error of development such as a very small uterus or stenosis of the cervix. Cases in the second group are complicated by inflammatory changes, or by the development of a tumour in the body of the uterus.

A number of uncomplicated cases are met with in which there are absolutely no morbid symptoms, and in such no treatment is indicated Other cases, however, present a distressing train of symptoms, such as dysmenorrhæa, often menorrhagia, pain in the back and lower abdomen, and sterility I do not however advocate the use of the stem pessary in all cases of anteflexion presenting such symptoms

The presence of any progressive inflammatory process, or of a new growth, or of joint adhesions, contra-indicates its employment. I therefore restrict the use of the stem to cases in which flexion is marked, and is the obvious cause of the symptoms, while the uterus remains free from adhesions, and there is no other pelvic disease. Stenosis of the cervix is not a contra-indication, for the cervix may be divided as a preliminary to the use of the stem.

In its simplest form the stem pessary consists of a straight or slightly curved cylindrical rod, provided with a collar to prevent it from slipping into the uterine cavity. This form is however very difficult to retain in position unless the patient be kept in bed, and modifications of it have therefore been devised which are not open to this objection A 'Combination Stem Pessary' consists of an intra-uterine stem fitted to some form of vaginal pessary, such as the Hodge, this serves the double purpose of retaining the stem in utero and supporting the uterus

When in any case it has been decided to use the stem pessary, the uterine cavity must be carefully measured with the sound, and a stem selected a little shorter than the uterus, to obviate injurious pressure of the point of the instrument upon the fundus. In introducing the stem it is sometimes necessary to employ an anæsthetic, and careful antiseptic measures should be always adopted. If the cervical

canal be too narrow to admit the stem, preliminary dilatation by means of laminaria tents may be practised, or in extreme cases, the cervix divided. The stem should be introduced rather by drawing down the cervix with the vulsellum than by pushing the stem into the uterus, just as the finger is passed into a glove by drawing the latter over it. If the flexion be so great that the stem cannot be made to pass the angle, it is best to divide the posterior lip of the ceivix, as the stem can then be carried back so as to bring it more nearly into the line of the uterine axis. If the cervix has been divided an interval of a few days should be allowed to elapse before the stem is introduced, to facilitate healing of the wound For a week or more after the introduction of the stem the patient is kept upon her back, she is then allowed to get up, and if the stem is retained in position it may be worn continuously for several weeks. If the instrument shows a tendency to slip, some form of the "Combination Stem" must be adopted.

I do not claim for the stem pessary that it will cure all cases in which it may be employed, but very marked benefit attends its use in suitable instances. Its presence is usually well tolerated, speedy relief from pain ensues, and menstruation may become entirely painless while the stem remains in situ. After wearing the instrument for some weeks the patient may be finally relieved of her troubles.

STENOSIS (of the Larynx). (See "Larynx.")

# STOMACH (Diet in Diseases of the). Robert Saundby, M D

The notion prevails to some extent amongst the medical profession that dietary rules are founded on no very sound basis, and often only represent the fads, idiosyncrasies or personal opinions of the authority propounding them, in fact there exists a certain degree of scepticism of the possibility of formulating definite principles which shall be applicable to all sorts and conditions of men. While not denying that the practice of some eminent physicians may have given reason for doubting its scientific basis, I am convinced that there is a sufficient foundation of positive knowledge, based on direct experiment and careful clinical observation, to enable us to lay down certain general rules and principles for the feeding of the sick, and especially of those who are suffering from diseases of the stomach.

We possess on the one hand a very complete acquaintance with the nature of the various articles of food, their physical and chemical constitution, and the normal and abnormal changes these undergo in the course of their passage through the alimentary canal, while, on the other hand, we have acquired a very precise knowledge of the altera tions in structure and function which take place in the digestive organs in consequence of disease. Added to this, we have also accumulated, as a result of direct clinical observation, a large amount of experience which controls and confirms the conclusions which could be deduced from physiological and pathological data. It is, therefore, to say the least, unfortunate that so little acquaintance with sound principles should characterise the advice too often given to the sick

The absence of clear ideas on this subject places doctors at a great disadvantage in withstanding popular prejudices and predilections which are all too powerful on matters of diet, although the grounds for our practice are so simple that they can be easily explained, and are strong enough to carry conviction to the mind of any intelligent person

Food consists of two chief paits (1,) solid matter of animal of vegetable origin, and (2,) beverages, while we may add a third group which consists of the various condiments and stimulants which do not nourish the body, but play an important part by stimulating many of its functions, and also in some instances by irritating or otherwise disorganising its stillcuite

Solid food consists of starch, sugar, vegetable fibres, albumen, fat, gelatine, animal connective tissue, and inorganic salts. It is as a rule prepared by cooking, which subserves the purpose of rupturing the starch capsules and converting part of the starch into dextrines, softening and loosening the animal and vegetable fibres while it coagulates the albumen, burns some of the fat and sets free some of the fatty acids, in these last respects acting with doubtful benefit

When it is introduced into the mouth, food is finely divided by the teeth and mixed with saliva, which coats it with a glairy covering to facilitate its passage into the stomach, and conveits the starch into a dextrose sugar, the ultimate term of the process which was begun in cooking, as already described, by the change of the starch into dextrine After reaching the stomach there is ample time for the starch-converting process to be completed before the acid of the gastric juice has combined with all the bases present in the food, and established such a degree of acidity as inhibits further diastasis Then commences the specific action of the gastric juice which peptonises the albumens of the food, the gastric contents becoming a liquified mass consisting of dextrose, peptone, and fat, mixed with animal and vegetable connective tissue and the secretions of the mouth and stomach This pultaceous material is called chyme, and is discharged through the pylorus into the duodenum by a mechanism which depends upon the integrity of the gastric neuro-muscular apparatus regulated by means still unexplained

So long as this apparatus works efficiently, the stomach is promptly and thoroughly cleared of ingesta, and even if these are not completely digested the supplementary agencies of the pancieatic and intestinal juices are able to complete the process, so that no harm results. The stomach being cleared cannot become the seat of those secondary fermentative changes, which, when they happen, are fraught with so much danger to its structure and discomfort to its possessor, and which are always too apt to occur from the constant presence of numerous ferment-working micro-organisms in the food and the buccal secretions.

Want of tone, as it is called, in the muscular wall of the stomach is, therefore, a very important and early factor in stomach derangement. The author in his "Ingleby Lectures," 1894, and Dr. Meinert, of Dresden, have shown that such atony exists very commonly in various debilitated states, anamia, etc., and thus proves the starting point for many digestive troubles. When the food lies too long in the stomach, so that fermentations can take place, fat is split up to form butyric acid, dextrose is converted into acetic acid, and these abnormal substances irritate the mucous liming and cause more or less catarrhal inflammation; gases are given off which occasion distension, and ejuctations of gas and acid fluid create discomfort and distress

Under these circumstances a bisk aperient will clear out the stomach and remove all these symptoms, but if the condition recurs frequently the stomach becomes irritable, articles of food hitherto well-borne become injurious, and must be eliminated from the dict, in order to permit recovery to take place

The facts named constitute a very common and typical sequence by which catairh of the stomach is determined, but whether it be in this way of as a consequence of acute diseases, or from the abuse of alcohol or tobacco, or from catching cold, the imitated gastic mucous membrane requires to be guarded for a longer or shorter period from agents which directly or indirectly may increase or maintain its inflamed condition

It is easy to apply the knowledge we possess for this purpose; we desire to introduce into the stomach food in sufficient quantity to supply the needs of the body, but so far limited in amount as not to tax the enfeebled muscular wall, while it must be as free as possible from substances which can act as irritants from their physical state, such as hardness or angularity, their pungency, or their proneness to undergo fermentative decomposition and give rise to acrid products. The food should therefore be soft, bland, and contain little fat, starch and sugar. To be soft it must be well cooked and finely divided, either by the teeth or otherwise, to be bland it must be fice

from condiments and unmixed with alcohol, except in a very diluted form.

These principles are so simple that they appear truisms of the flattest description, yet the whole basis of dietetics consists of equally plain truths, as will be manifested in due course. Enough has been said by way of introduction, and we may now proceed to consider the diet appropriate for special diseases of the stomach.

Catarrh of the Stomach — Catarrh of the stomach occurs under two forms (1,) acute; (2,) chronic

Acute catarrh of the stomach constitutes an ordinary bilious attack and, if intense, is characterised by loss of appetite, a coated tongue, foul breath, pain after food, sour eluctations, flatulence, and vomiting If the intestine is involved there is diairhoa, but usually the bowels are confined. The most rational treatment is abstinence from all food for twenty-four hours, but as this is not always acceptable advice, we may give a teaspoonful of Liebig's Extract of meat dissolved in a teacupful of hot water, and a little piece of very dry toast every four hours, or a little beef jelly, or a little milk diluted with a third pait of lime water. This rest for the stomach combined with a Blue Pill, a Saline Aperient, and Bismuth Mixture will work wonders

The appetite will return. Bearing in mind the principles laid down, we shall best conform to those indications by ordering boiled or broiled sole or whiting. Eels, mackerel, and salmon are inadmissible on account of the fat they contain, and the fish must not be fried because it would then be partly soaked in fat, and some portions would be burnt. If any condiment is desired, a little lemon may be squeezed over it, and a piece of toast may be eaten with it. As a sweet, a cold baked custard or calves'-foot jelly, without wine. Aerated mineral water, with a dash of claret or a slice of lemon in it, is a suitable drink. On subsequent days boiled chicken or a boiled or stewed mutton chop free from fat may be given. If tea is begged for and things are going well it may be allowed, infused with milk instead of water. As convalescence becomes established, a little well mashed potato may be taken with the meat, and a little butter with the dry toast.

In Chronic Catarrh of the Stomach the principles are the same, but such definite rules cannot be laid down for each day's diet. It must suffice to indicate what articles of diet are likely to prove harmful

Thus we may say, Avoid all condiments—peppers, spices, sauces, vinegar and pickles, salads, and all uncooked or badly cooked fruit and vegetables, and all containing skins, seeds, and fibres, mushrooms, onions, cairots, parsnips, turnips, gooseberiies, raspberries.

and currants; brown bread and oatmeal porridge; fat, including butter; fat meats, such as pork and veal, only fish, such as eels. mackerel, and salmon; fat poultry, such as duck and goose, strong tea; strong wines and spirits, malt liquois, much sugar or preserves.

All bread should be well toasted, and starchy and farmaceous food should be eaten spanngly

Great stress should be laid on the caution to be exercised in taking any fruit or vegetables except such as are soft and are well cooked Any alcohol should be well diluted, and should never be taken on an empty stomach

Dilatation of the Stomach.—This is so often associated with catairh that what has been already said applies with equal force, but in addition certain considerations must be borne in mind. In the first place the meals must be small in quantity and sufficiently frequent to permit the necessary amount of food to be taken, at least five meals daily, each not to exceed five or six ounces. In the second place, if there is any pylonic obstruction, the greatest care should be exercised to avoid introducing into the stomach lumps of solid food. Very little liquid should be taken with the meals, but a sufficient quantity may be drunk between the times of eating. Milk and meat in the form of dry powder, which can now be obtained, can be made into a thick gruel, and may be usefully employed in these cases. The value of salme aperients in dilated stomach should not be overlooked.

Ulcer of the Stomach — The diagnosis of ulcer of the stomach depends upon the occurrence of hæmatemesis, and after such an attack it is advisable to stop all food by the mouth and feed per rectum. A nutrient enema should consist of one egg beaten up and sufficient milk to make four ounces. This may be given every four hours. If required, a diachm of brandy may be added

It is not recommended to continue the practice of rectal feeding for many days after the hæmatemesis has stopped, and blood is no longer to be seen in the stools. Gastric ulcer is so closely dependent upon anæmia, and the indication to improve the general nutrition is so clearly imperative, that it is advisable in a few days to begin with reed milk, one ounce every hour. If this is tolerated, two ounces may be given every two hours, then in succession Benger's food, soft bread and milk, minced chicken and minced mutton, as each appears to be well borne. This diet should always be accompanied by the exhibition of Sulphate of Iron and Sulphate of Magnesia, the latter in sufficient doses to effect a daily free action of the bowels. This treatment has stood the test of many years' experience, and can be recommended with perfect confidence.

Cancer of the Stomach—Unfortunately this disease lies so far beyond the reach of medical art that it seems scarcely worth while to say anything about diet, nothing that can be done having any influence upon the piogress of the malady—But in cancer of the stomach there is generally catairh, and, usually, deficient secretion of gastric juice, and these complications are responsible for much remediable gastric trouble—The diet in cancer should be the diet of catairh or of dilated stomach, and it should not be forgotten that Saline Aperients and Mercury will often relieve symptoms which arise from delayed peristalsis, by clearing out the stomach

Neuroses of the Stomach—No special dietary is needed for this class of cases. In fact it is, as a rule, necessary to discourage the patient's tendency to diet himself, under the supposition that his troubles are due to indigestion. Rest is the great means of cure, rest to the body and mind. Where there is vomiting or anorexia rest in bed becomes essential, and the diet must be at first confined to an ounce, or even half an ounce, of milk every hour or half hour. But this scanty fare should be increased as rapidly as possible, though it is better to proceed by stages, as recommended in ulcer of the stomach, until full diet is reached.

Should habitual dyspeptics drink tea? This is a question which is generally answered by the medical profession in the negative, but the advice so conveyed is not always accepted. There is no reason for laying down a haid and fast rule on this point, it is only necessary to foibid tea during an acute attack. Afterwards it may be allowed in moderation, if its use is not followed by any obvious bad results. Where these occur it is worth while to try infusing it with milk

The same question may be asked respecting alcohol, and needs a similar inswer. A moderate amount of weak alcoholic drink is often taken without harm, and in the case of many persons with benefit. But the preferable form is light wine, diluted with water or mineral water. Malt liquous are not often tolerated, and spirits are very liable to do mischief, in fact, it is to be greatly regretted that spirits are so often taken on medical advice as the safest drink for dyspepsia. We should always bear in mind the dictum of Prout, "The error of quantity in diet is of infinitely more importance than the error of quality. Any stomach may digest a little of anything; but no stomach can digest a great deal of anything."

Synopsis — (Vol 1894, p 531) Direct Gastro-faradization increases secretion Gastro-galvanization for obstinate neuralgias of any origin Nitrate of Silver in solution, a tablespoonful of a solution 2 to 120 in a wineglassful of water is first used three times a day, and gradually increased The dose is taken on an empty stomach. Abstinence from food except per

rectum Glycozone, 51, an hour before meals in gastric ulcer or just after meals in gastritis, or as enema B. Glycozone, 5vjss, Warm Water, 5x 5v In cardialgia first wash out stomach, then introduce 10 or 20 grs Bismuth Subnitrate in warm water, and patient kept quiet for half an hour, after which food may be taken Chlorate of Soda 511—1v daily for gastric cancer

# STOMACH (Surgery of). A IV. Mayo Robson, FRCS

The past year shows distinct progress in this branch of surgery, more especially in the treatment of perforating gastric ulcer, but also in that of stenosis and its sequel dilatation

Before the London Clinical Society we drew attention to dilatation of the stomach as a sequel of adhesions around the pylorus, and pointed out that by separating the adhesions the pylorus might be made to perform its functions normally again, thus relieving the dilatation. In support of the arguments two cases thus treated were described

Gastrotomy for the removal of Foreign Bodies —In the "Lancet" for November, 1894, we described a case in which "forty-two cast non garden nails  $1\frac{5}{2}$  inch long, ninety-three biass and tin tacks from  $\frac{1}{2}$  to 1 inch long, twelve large nails, some biass-headed, three collais studs, one safety pin, and one sewing needle," were removed by gastrotomy, the patient, a gul of twelve making a complete recovery

The value of transfusion of saline fluid in shock was pointed out, as although the operation was not very prolonged and practically no blood was lost, the patient, much exhausted by excessive vomiting before the operation was begun, was pulseless after its termination, yet transfusion restored the pulse and rendered recovery possible

Di James F Gemmel also reports a case of gastrotomy for the removal of a mass of foreign bodies weighing i pound 9½ ounces, from the stomach of a man the subject of chronic mania. Unfortunately the patient was too feeble to withstand the shock of the operation

Mr Frederic Eve<sup>3</sup> reports a remarkable case of intestinal obstruction, perforation of the bowel, and peritonitis, due to a heterogeneous mass of foreign bodies swallowed from time to time by the patient

At the post mortem examination the stomach was found to be empty and the mucous membrane very slightly altered, save for a little ecchymosis at the cardiac end

The interesting point in this case lies in the fact that the mucous membrane of the stomach was apparently uninjured by the foreign bodies which afterwards perforated the intestines

An important and interesting discussion was opened by Mr Pearce

Gould,4 at the British Medical Association's Meeting, at Bristol, and in discussing the operative treatment of ulcer of the stomach he remarked that laparotomy for the purpose of excising a non-perforated gastric ulcer had little to recommend it, masmuch as the site of the ulcer cannot be ascertained before operation, and in a large proportion of cases the symptoms before perforation are either entirely absent or so slight as not to warrant a diagnosis of ulcer

After perforation, the operation should not be done while the patient is suffering from the primary shock, but as soon as reaction has set in The primary incision should be in the middle line, as this gives the best access to the whole abdomen, a lateral cut, or an extension of the first incision, may be made if required

The cleansing of the peritoneum is the most important step of the operation, for this purpose Mr Gould considers flushing the cavity with saline solution 31 of common salt to the pint of boiled water, at a temperature of 110° to 112° F to be the best plan The flushing must be thoroughly and methodically carried out. The hole in the stomach should be closed by Lembert's sutures, passed so as to invert the floor of the ulcer and a part of the surrounding walls Excision of the ulcer is not recommended. If found impossible to inveit the ulcer a gastric fistula may be made, or when the perforation is so placed as to make this impossible, diamage by a tube passed into the ulcer and surrounded by an iodoform gauze tamponade is suggested Drainage by tube inscited through a separate wound above the pubes is necessary in all cases where peritonitis is marked. When doubtful of the gastric sutures, a large drainage tube should be inserted with one end near the ulcer. If the hot urigation does not remove the collapse, intravenous injection of a saline solution may be practised

Seven successful cases of operation for this condition are referred to On the subject of subphrenic abscess, Mr Gould makes two comments —

- (1,) Operation should be postponed until the abscess can be distinctly localised
- (2), Many of these abscesses point and are opened anteriorly, but in all such cases a free posterior opening should be made if practicable

In the discussion that followed, Dr Roderick McLaren mentioned a successful case of operation occurring in his practice

Mr Hastings Gilford 5 in recording a case of perforated gastric ulcer successfully treated by operation, considers it advisable to excise the margins of the perforation before passing the sutures.

Mr. Bourchier Nicholson<sup>6</sup> records a case of runtured gastric ulcer

successfully treated by laparotomy, suture by Lembert's method, lavage, and drainage Operation was performed three hours after the rupture had occurred

Mr Thomas H Morse 7 also records a similar case successfully operated on five hours after rupture

Mr Fiederic Eve<sup>8</sup> describes a case of perforation of gastric ulcer situated on the anterior wall of the stomach in which the patient was able to perform her duties (those of a domestic servant) for more than twenty-four hours after the event

Mr Bennett's records a case of complete recovery after operation for sub-phienic pneumothorax due to perforation of gastric ulcer. The abdominal lesion was treated as an ordinary abscess, without any attempt at closing or even exposing the gastric perforation. The issue of the case shows that a perforation of the stomach will, in these subacute cases, when it communicates with a well-circumscribed cavity, heal spontaneously if the cavity be drained.

Mr. Herbert Page to in reporting two unsuccessful cases of operation for ruptured gastric ulcer remarks that the chances of success must largely depend on the good fortune which attends the surgeon as to the lesions he may find, and the time at which he has been called to operate

Dr F N Kelynack" says that many anomalous cases of sudden illness with acute abdominal symptoms rapidly terminating fatally, even before the subject can be brought to hospital, or receive adequate medical assistance, are due to perforation of chronic gastric or duodenal ulcer

In a series of one hundred and fifty-seven deaths from acute peritoritis occurring in the Royal Infirmary, Manchester, six were cases of perforation of gastric ulcer, and six of duodenal ulcer

Kelynack draws attention to the fact that the perforation is often very small and may be with great difficulty detected even after death Gaseous injection through the esophagus may prove of service in discovering the perforation in such cases

Rupture of Stomach—Brig-Surgeon Lieut-Col O'Farrell<sup>x2</sup> records a case of sudden death of an apparently healthy boy, aged thirteen, from convulsions following rupture of the stomach

The whole illness only lasted twenty-two hours, and until an hour before death the only symptoms were headache and slight vomiting An hour before death he was seized with most violent convulsions Post mortem a rent three inches long was found in the inflamed tissues at the back of the stomach

Kuster<sup>13</sup> records a case of successful operative interference for pro-

fuse and repeated bleeding from an ulcer of the stomach Laparotomy, incision of the dilated stomach, and cauterisation with the thermocautery of a large and deep ulcer rear the pylorus was practised Gastro-requirestomy was then performed

Dunin<sup>14</sup> is of opinion that in obstinate recurrent hæmorrhage due to ulcer gastro-enterostomy may be useful, even in the absence of stenosis. The passage of the food by another route than the pylorus, which is the favourite seat of ulcer, and perhaps the diminished acidity of the gastric juice would be beneficial.

E Hahn 15 has lately performed fifteen gastro-enterostomies and four resections of the stomach. All the former survived, but of the latter one died, a most extensive resection having been done. The author has also operated on a woman with severe and long continued pain in the region of the stomach. Five strong adhesions between the stomach and colon were divided, and the patient was well afterwards.

Hahn records a case of pylorectomy for carcinoma, peformed in July, 1893. The patient returned in eight months with signs of pyloric obstruction, and numerous adhesions were then divided. He seemed to improve, but it was soon found necessary to do a gastroenterostomy. The patient died some six months later, of recuirence

The author also records a case of pylorectomy for extensive carcinoma (proved by the microscope), done three years and a half ago, the patient remaining free from recurrence

In cases of extensive resection of the stomach it is undesirable to attempt to unite the stomach and duodenum, but a gastro-jejunostomy should be done after sewing up the stomach and duodenum. The authorno longer uses his clamps, as they may produce gangrene, and make the later bleeding more difficult to control. He makes the opening in the stomach in gastro-enterostomy as near the pylorus as can wisely be done. The intestine should be opened near the attachment of the mesentery. Hahn regards as very important the washing out the stomach soon after the operation, that is, in twelve to twenty-four hours. He refers to a case in which gastro-enterostomy was done some seven years before death, due to independent causes. The tumour was thought to be carcinoma, but unfortunately no necropsy was performed. He recommends Woelffler's method of gastro-enterostomy, with a few modifications.

In the "International Clinics," 1894, we described the operation of gastro-enterostomy by the decalcified bone bobbin, and illustrated the paper by cases We remarked on the expedition, the simplicity, the safety, and the efficiency of this method which secures continuity

of mucous membrane through the new opening, and thus avoids the danger of stenosis of the fistula

William S Magill<sup>16</sup> in advocating the use of absorbable plates in visceial approximation says "Forty-seven patients survived the operation of gastio-enterostomy with absorbable plates, a percentage of 77 05 Twenty of these patients are noted at various times as well, and no indication of their death can be found"

Pylorectomy has been performed three times with the aid of approximation plates, by three different surgeons, one died, the other two are still living. The rapidity of plate approximation makes a different operation of pylorectomy than when it was performed with sutures

Dr Murphy claims great advantage by the use of his button, both in gastio-enterostomy and in pylorectomy. In the latter operation the button is placed in the cut end of the duodenum and in a new opening on the posterior wall of the stomach, the pyloric incision being closed by sutures.

Levv17 describes an operation devised by him, with the help of Fehleisen, for the resection of the cardiac end of the stomach A rectangular incision is made through the abdominal wall, one limb running in the middle line from the ensiform appendage to the umbilicus, the other carried from the lower end of this through the whole breadth of the rectus muscle on the right side. The left half of the smaller omentum is separated from the stomach, and the left coronary artery and vein are divided between two ligatures After separation of the cardiac end of the stomach from the structures behind, the lower part of the esophagus is isolated by dividing the serous membrane round this tube with scissors, exposing the anterior part of the cosophageal foramen in the diaphiagm, and tying all visible vessels, mostly branches of the phienic aftery, at this part. At this stage there is a risk of wounding the pleuia The intestine being carefully protected by gauze, the posterior wall of the resophagus beyond the disease is stitched to a healthy portion of the stomach, and then the cardiac end of the stomach is divided by a succession of strokes, the cut edges of the anterior and posterior walls being stitched together after each stroke of the knife or scissors beyond the orifice left for the attachment of the œsophagus This tube is now divided in a similar way, each portion as it is cut being stitched to the opening in the stomach If the œsophagus be not fixed before it is completely divided, it will retract and disappear above the foramen. The sutures are not carried parallel with the long axis of the esophagus, but obliquely through its coats.

Zawadzki and Solmania report a successful case of resection of

pyloric cancer, and draw attention to the degree of dilatation of the stomach. In great dilatation a gastro-enterostomy at the lowest point should be performed, masmuch as the food could hardly get through the new opening formed by pyloroplasty.

At the November meeting of the Yorkshire branch of the British Medical Association Mr Jessop reported the case of a woman in good health, from whom he had removed, by pylorectomy, a cancer of the pylorus three years before

Zieglei 19 relates a rare case of cyst, of the anterior stomach wall, appearing two weeks after a buffer accident. Five months later laparotomy was performed and the large peritoneum-covered cyst evacuated of three litres of fluid. The patient recovered completely

Brandt<sup>20</sup> proposes to diminish the size of the dilated stomach of idiopathic origin, by folding in its wall and suturing it through the serous and muscular layers. He reports one case in which this procedure was carried out. The patient made a good recovery without any disturbance of digestion

Mr. J. Hazelwood Clayton or describes a case of abdominal injury, due to a crush, in which at post moitem the inucous membrane of the stomach was found ruptured on the anterior and posterior wall without appreciable injury to the other coats

REFERENCES—<sup>1</sup> Clm Soc Trans, 1894, <sup>2</sup> "Lancet," Aug 25, 1894; <sup>3</sup> "Brit Med. Jouin," May 5, 1894, <sup>4</sup>Ibid, Octobei 20, 1894, <sup>5</sup> "Lancet," June 2, 1894, <sup>6</sup> "Brit Med Jouin," Nov 3, 1894; <sup>7</sup> "Lancet," March 17, 1894, <sup>8</sup> Ibid, Nov 10, 1894, <sup>9</sup> Ibid, Nov 17, 1894, <sup>10</sup> Ibid, March 24, 1894, <sup>12</sup> "Brit Med Jouin," Oct 27, 1894, <sup>12</sup> "Lancet," May 19, 1894, <sup>13</sup> "Centialblatt f Chir," No 30, 1894, <sup>14</sup> "Beilin klin Woch," Jan 15 and 22, 1894, <sup>15</sup> "Brit Med Jouin," Nov 17, 1894, <sup>16</sup> "Annals of Surgery," Sept, 1894, <sup>17</sup> "Centialblatt f. Chir," No 31, 1894, <sup>18</sup> "Deut Med Woch," Feb 22, 1894, <sup>15</sup> "Munch. Med Woch," Feb 6, 1894; <sup>20</sup> "Centralblatt fur Chirugie," Nov. 16, 1894, <sup>21</sup> "Brit Med Jouin," March 24, 1894

#### SYCOSIS.

Synopsis — (Vol 1894, p 533) Rubbing with Absolute Alcohol Opening pustules and touching them with absolute alcohol with or without Boric Acid Lastly, painting with a solution of Essence of Cinnamon, 3ij, Sweet Oil of Almonds, 3ij—iij Pain may be relieved by Marsh Mallow and Boric Acid Spray. Stelwagon advises Shaving, Depilation and application of B Sulph Præcip, 3j, Bals Peruv, 3ss, Ung Diachyli ad 3j, M Ichthyol, 3j—3j may be added. Gottheil after epilation applies B Tinct Opii, 3ss—3j, Ac Carbol Cryst, gr vij, Cold Cream, 3j For acute inflammation he uses B Ung Diachyli, Ung Zinc Ox āā 3ss, or B Hydrarg Ammoniat, 3ss, Vaseline ad 3j, or later B Ichthyol, 3ss, Lanolin ad 3j, Klotz, uses a 2% ointment of β-Naphthol with ro% Sulphur and Oxide of Zinc. Leigh uses Pyoktanin, i in 500 solution, or ointment with Vaseline. Cataphoresis.

#### TATTOO MARKS.

T. Colcott For, M B

Ohmann-Dumesnil and Nelson have reported cases of tattooing and gunpowder disfigurements which have been successfully dealt with by tattooing the parts with **Glycerole of Papoid.** 

# TEETH (Pyorrhœa Alveolaris). J Fitzgerald, LDS

Pyorthea alveolatis, or Rigg's disease, is a term applied to a diseased condition which is characterised by the presence of pus between the edges of the gums and the necks of the teeth. On pressing the edges of the gums, pus is seen to well up alongside the teeth.

This condition, usually overlooked or unrecognized by the practitioner of medicine, is, nevertheless, of great importance, as modern pathology teaches us that upon it depend in many cases, not only local troubles of the mouth, but also disturbances of the whole system, and particularly of the digestive organs. The tendency of modern medicine is not to rest satisfied with the diagnosis of "debility," or "anæmia," but to try and search out the initial cause for these conditions, and in an unrecognized pyorihæa alveolaris, we may, I venture to assert, often find a clue to the elucidation of certain departures from health which have baffled our powers of investigation

Pyorrhea alveolaris acts in a two-fold manner in the causation of disease *First*, the pus with its multitude of putiefactive organisms may be swallowed *Secondly*, it may be absorbed into the system.

In the former case, abnormal fermentations may be set up in the stomach contents. Just as the introduction of the yeast ferment into a trough of warm dough leavens the whole mass, so the mixture of the bacilli of fermentation, swallowed with every mouthful of food, induces rapid changes in the stomach contents, subjectively experienced by the patient as flatulent dyspepsia

In the latter case, the continual absorption of pus or its toxines into the system is now known to be a fertile source of neuritis and neurasthema. It is evident, therefore, that the subject should receive the attention of the practitioner, and that he should be able to diagnose and treat cases which may come under his notice, and by thus climinating the condition of the teeth and gums as a possible cause of the malady for which he has been consulted, arrive at the true cause of the complaint. I shall, therefore, in this short paper, attempt to point out the main facts, and thus supply a working knowledge of a subject, which, although of such importance, is not included in the curriculum of the student of general medicine.

The condition of pyorrhœa alveolaris is an accompaniment of several

distinct diseases which must be accurately differentiated as their treatment differs. We shall describe these in order of severity. Before doing so, however, it will be as well to remind our readers briefly of the structure and functions of the gingivx, or gum margins (see Fig 35).

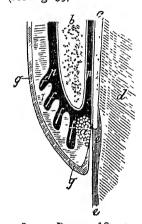


Fig 35—Diagram of Structure of the Gingival Bordei and Subjacent Paris a, Gingival organ, b, Bone, c, Cementum; d, Dentine, c, Enamel, f, Papillary projections of fibrous tissue covering periosteum, g, Squamous epithelium, p, Peridental membrane.

The free margin of the gum is covered on its exposed surface by a very dense squamous epithelium, which is necessary to enable it to withstand the abrading action of food during the act of mastica-Under this lies a layer of softer epithelial cells covering a series of papillary projections from the subjacent fibrous This composite structure is firmly attached to the neck of the tooth and the periosteum of the alveolar wall by the dental ligament, which consists of radiating bundles of fibrous tissue. attachment of the gum to the tooth values from one-eight to three-eights of an inch from the free margin of the gum. epithelium that covers the inner surface of the gum maigin, ie, that portion in contact with the neck of the tooth, consists of very soft round or polygonal cells, and is of considerable depth Although not of glandular structure, it secretes a profusion

of small rounded cells which are to be found in abundance in the saliva, and are usually called mucous corpuscles. For this reason, it has been termed the gingival organ. It is probable that this structure is not the sole source of the mucous cells in the saliva, but it will certainly account for many of them. This can easily be proved by passing the end of a thin instrument under the free margin of a healthy gum, and transferring the secretion to a slide for microscopic examination. The knowledge of this organ and its secretion is of the greatest importance to the physician, as the accumulation of these cells mixed with organisms under the free margin of the gum forms soft cheesy masses that so nearly resemble pus that they may be easily mistaken for it, and thus lead the observer to make an erroneous diagnosis of pyorrhæa alveolaris. With these preliminary remarks, we will proceed to the consideration of the conditions or morbid states which are accompanied by true pyorrhæa.

These are (1,) Gingivitis, (2,) Calcic inflammation of the peridental membrane; and (3,) Phagedenic pericementitis

Gingivitis — It appears to be now quite certain that the gingival organs possess, in common with certain glands of the body, the power of selecting and excreting certain poisonous matters from the blood, and that certain of these substances, if in any considerable quantity, cause hyperæmia, or even inflammation in their passage. We have notable examples of this in the inflammation of the gums caused by mercury, and rodide of potassium, respectively. Although each of these is a true gingivitis, yet owing to the salivary glands being at the same time affected, it is usually spoken of as "salivation". A form of gingivitis is met with in scurvy, and another form frequently attacks young people, and is of importance insomuch as it often accompanies antemia and rheumatoid arthritis, and not improbably acts as a factor in their causation.

In this last form of gingivitis the gums become red and swollen, and bleed from trifling causes. They are everted, and the pockets thus formed are filled with pus corpuscles and the micro organisms of

the mouth The inflammation does not assume a destructive character, and there is little or no separation of the tissues from the necks of the teeth Although simple gingivitis is usually transient, lasting but a few weeks, yet it is undoubtedly in some cases the starting point of graver diseases of the peridental membranes

Calcic Inflammation of the Peridental Membrane and Gums—This condition may be defined as inflammation of the gums set up and perpetuated by the irritation of tartar on the teeth (see Fig. 36)

Of this there are two dis-



- (1,) When the tartar is hidden from sight, being on the necks of the teeth below the edge of the gums, and
- (2,) When it encrusts the buccal, labial, and lingual surfaces of the teeth above the level of the edge of the gum, particularly the buccal

surfaces of the upper molars and the lingual surfaces of the lower incisors.

470

In the case where the tartar is deposited below the edges of the gums it is either in the form of a hard brownish crust, or as little nodules adhering very firmly to the neck of the tooth, it is deposited from the serum which exides from diseased gums, and is caused by anything that will right the gums, and may be initiated by .—

- (1,) Accumulations of micro-organisms or food, under the edges of the gums.
  - (2,) Constitutional causes leading to irritation of the gums
- (3,) Irritation from a neighbouring deposit of ordinary salivary calculus

After taitar has once been deposited upon the neck of a tooth, a vicious circle is established which is very hard to break. When a slight deposit has once taken place it becomes an irritant which will itself perpetuate the disease; in fact all varieties of tartar seem to possess irritating qualities of an extreme nature, which keep the border of the peridental membrane and the adjacent gum in a continual state of chronic inflammation, with the result of a continued, slow increase of the deposit. The course of the disease from this point is as follows. After a longer or shorter period, the lower border of the peridental membrane ulcerates, and is gradually destroyed and the neck of the tooth becomes exposed. Pari passii with this destruction of the peridental membrane, the edge of the bony socket of the tooth is absorbed and the gum recedes with it, exposing to view the band of tartar surrounding the neck of the tooth. This variety of calculus is called "serumal"

In cases where the tartar is deposited above the edges of the gums, the so-called "salivary calculus," the diseased conditions produced are very similar to those already discribed, but the deposit is more abundant on the teeth in the vicinity of the orifices of the ducts of the salivary glands, as the tartar is deposited by the salivary fluid. The deposit commencing on the lingual surfaces of the lower incisors, and on the buccal surfaces of the upper molars gradually creeps in between the teeth, and passing from tooth to tooth, eventually involves all of them. This kind of calculus is sometimes dark, but usually of a light yellow colour; it is softer than the sub-gingival variety, is deposited in larger quantity, and is much more destructive in its effects. No tissue retains its health if in contact with salivary calculus. It is continually on the aggressive, and follows up its destructive effects by fresh deposits in the space gained. In this way teeth are loosened very rapidly.

Phagedanic Pericementitis — The third and last condition of which pyorrhoea may be a symptom, but, unfortunately, the most serious of them all, is Phagedanic pericementitis, or destructive inflammation of the peridental membrane

47 I

It is not known for certain whether this disease is of bacillary origin, but the probabilities in favour of this view are preponderating As to its actiology the following facts are known.—

- (1,) It is certainly infectious. It can be carried from person to person by the medium of instruments, and one tooth may infect an adjacent one
- (2,) It is in no wise hereditary, as is the disposition to the deposit of taitar,
  - (3,) Deposits of calculus predispose the patient to contract it.
- (4,) It can only be cured by the complete removal of the diseased tissue.

This disease is an inflammation of a special type, which attacks the peridental membrane, and destroys it bit by bit, the destruction of the alveolar walls taking place at the same time. The inflammation may be either acute or chronic, and during its progress the membrane first becomes swollen, owing to the infiltration of leucocytes among its individual fibres, which themselves are lengthened and enlarged. These fibres seem to actually melt down and separate themselves from the root of the tooth, but retain their hold upon the alveolar wall until quite destroyed.

For a long time the gums are unaffected beyond a slight reddening of their margins, and the presence of the disease is only suspected by finding that pus exudes from beneath the gum when pressure is applied to it. After a time, a careful examination with a thin blunt flat blade will show that destruction of the peridental membrane is taking place, as the instrument will pass up further than it should along the side of the tooth, into a little pocket which has already formed, and contains These pockets are the characteristic feature of the disease They follow the length of the fibres of the peridental membrane, 1un up alongside the root of the tooth, may be single or multiple, and may attack the lingual, buccal, or proximal sides of the teeth tendency is eventually to the destruction of the whole peridental membrane as the pockets slowly widen, usually megularly, until they encircle the teeth. It not unfrequently happens that the entire apex of the root is denuded, whilst the tooth is held in its place by a strip of membrane on the other side, which has, as yet undergone little change. All this time the gums may show no signs of disease externally, beyond a certain amount of injection, and there may be little or

no recession. At the same time that these changes are taking place in the membrane, absorption of the alveolar wall is going on. In some cases, whilst the inner portion of the alveolar wall is being destroyed, deposit of new bone is taking place on its outer surface. The result of this is that the alveolar wall becomes lipped, and by its everted edge holds away the gum from the tooth. The destruction of bone appears to be a process of true absorption, rather than molecular necrosis, and is the result of an absorptive action of the membrane itself, caused by the initiation of inflammation.

We now come to the consideration of a class of cases in which the two diseases (calcic inflammation, and pericementitis) are combined. It is exceedingly common to find calcic inflammation from the deposit of calculus and phagedænic pericementitis further up towards the apex of the root of the tooth.

For purposes of diagnosis, I will divide all cases of pyorrhœa into two groups —

(1,) Where there is visible salivary calculus or recession of gum and exposure of the roots of the teeth.

Here, in addition to the diagnosis which is obvious, and we are enabled to make at sight, we have to establish chiefly whether there is present pericementitis, or whether the calculus is the sole exciting cause. Where there is no absorption of the gum, we have to find out whether a serumal calculus exists in addition to the salivary one that we can see. Our prognosis will be much more Evourable if we have only a salivary calculus to deal with

The first thing to do is to remove the salivary calculus entirely Search must next be made beneath the gum for serumal calculus, then see if any pockets are present in the peridental membrane. If no pockets are detected, and we find when the last of the salivary calculus has been removed, the peridental membrane is intact all round, and attached to the root of the tooth, the operator is justified in assuming that there are no points where the peridental membrane has been destroyed much further than the calculus has extended. If such is the case, he may assume the absence of phagedænic pericementitis.

If on the other hand, when the calculus has all been removed, he finds that the membrane has been destroyed, it points much further than the calculus has extended on the root of the tooth, and that the wall of the alveolus, instead of being destroyed as a whole, has been eaten away somewhat in the form of a fissure, extending to the apex of the tooth, leaving angular prominences of bone, thickened, with everted edges, he may conclude that the salivary calculus is complicated with the more serious disease

(2,) In the second class of case which presents itself for diagnosis, we can see nothing wrong with the gums, except, perhaps, a slight sponginess and congestion, and the pus which wells up alongside the teeth when pressure is made

Salivary calculus is here excluded, and the disease may possibly be either simple gingivitis, serumal calculus, pericementitis, or the combination of the latter two

Excluding taitar and pockets, the case will be one of simple ginginits. Taiter under the gum without pockets will be calcic inflammation, pure and simple. The presence of pockets will indicate, as in the case of salivary calculus, the presence of phagedænic pericementitis.

In order to ascertain whether subgringival calculus be present, instrumentation should be resorted to

TREATMENT—The treatment of pyorihœa alveolaris is of great importance to the general practitioner, and deserves his consideration for the following reasons—

- (1,) With a little practice and a few simple instruments he can treat this condition quite as well as a dentist
- (2,) In country districts efficient dental aid cannot always be obtained
- (3,) It is illogical for him to try to cure a patient of such diseases as rheumatoid aithritis, or dyspepsia, which may possibly be caused by continual absorption of small quantities of pus, as long as pyorthæa alveolaris is allowed to remain untreated
- (4,) Patients in poor circumstances often cannot afford to place themselves in the hands of a competent dental surgeon, and it is hard that therefore they should be doomed to remain uncured of their dyspepsia
- (5,) There is no reason why a purely surgical disease of the gums, which must be cured by purely surgical means, should be considered to be outside the province of a surgeon

Simple Gingivitis —This presents no difficulty If not due to mercury or iodide, a brisk purge followed by vegetable acids will usually do a great deal towards restoring the patient to health. As a means of administering the latter, nothing is better than the free use of oranges and lemons, as they also have the advantange of acting locally upon the parts themselves. At the same time an antiseptic should be used night and morning, for this purpose nothing is better than Listerine, a few drops of which may be poured upon the tooth brush. In obstinate cases we must pack powdered Sulphate of Copper down under the edges of the gums with a wooden point

for several days in succession, and then give the patient the following mouth-wash -

B: Potassæ Chloratis Tinct Arnicæ 511 ad Svin Aquæ Rosæ Sode Biboratis 51 Sss Potassæ Nitratis M<sub>1</sub>sce

Calcie Inflammation — In the treatment of calcie inflammation, first of all remove every vestige of tartar, both salivary and serumal This is quite an easy operation if performed with a knowledge of the right method, and with proper instruments

The necessary instruments are the following -

(1,) Two of three clooked or hoe-shaped instruments of various sizes for the removal of the bulk of the large concretions of salivary calculus, by a pulling motion, and a set of Howe's scalers for removing remaining politions, to be used in a similar manner



Pig 37 -a, Scaler, b, Calculus, 1, Direction

(2.) A set of Cushing's scalers for removing with a pushing motion the last particles of salivary calculus and serumal calculi, and for probing for pockets.

(3,) A hypodermic syringe, with a special can-

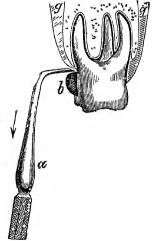
nula for the applicaof medicated solutions to the peridental membrane

(4.) A properly shaped wooden point for packing sulphate of copper under the maigin of the gum

The proper way of removing a calculus is to apply the chisel edge of the scaler to the point where it

joins the tooth, and gently piess calculus will then start right off the tooth (see Fig 37)

In removing a large salivary calculus, the hoe-shaped end of the hooked instiument must be passed under the calculus  $F_{ig}$  38- $\alpha$ , Scaler, b, Calculus; Direction of pressure



where it touches the gum, and the instrument pulled towards the crown of the tooth (see Fig. 38).

The greater part of the tartar can be removed without any difficulty by the novice, but the difficulty commences with the removal of the last small scales. A careful search must be made for these, up under the edges of the gum, as a small particle overlooked will certainly keep up the irritation and prevent healing. If, in any case, you have excluded pericementitis, and healing does not promptly follow removal of the tartar, you may be quite sure that some of it has been left behind

After the removal of the deposits, Peroxide of Hydrogen Solution should be syringed up under the gums, and the patient told to report himself in a week

The following are eligible formulæ for these :-

Ŗ	Acıdı Glyc Carbolıcı Acıdı Tannıcı Potassæ Chloratıs	Jiv   Sodæ Biboratis Ji   Aquæ Rosæ Jij	آن ad §viij
		Misce	
		Powder	
Ŗ	Cretæ Precip Pulv Radicis Iridis Pulv Saponis Albi	31v Ol Eucalyptis 311 Otto Rosæ 5vj	Zss Mv1
		Misce	

If the tissues are found to be turged and thickened, and in a state of active inflammation, a 20 per cent solution of **Chloride of Zinc** should be applied with the syringe under the edge of the gums

If there is much destruction of tissue, the patient should attend every four days, and have the following remedy applied with a brush to the parts —

I should here like to make my protest against the practice which is too prevalent among dental surgeons, of removing with a chisel the lower margin of the alveolar process and peridental membrane in all cases where there is recession of gum and absorptions of the process. This proceeding is only called for in phagedænic pericementitis, and is quite superfluous in the treatment of calcic inflammation.

Phagedænic Pericementitis — The surgeon should remove all calculi, and examine the alveolar processes and eroded portions for roughened or everted margins. All eversions of the alveolar wall must be cut off, all jagged points of bone removed, all thick edges trimmed down or broken away. The method of doing this will vary greatly with each

case. When the destruction has not been very great, and the parts can be easily reached, a hoe-shaped excavator with a broad cutting edge may be introduced between the gum and the tooth, and the margin of the alveolar wall cut away until the bone is felt to become firm and resistant to the cutting edge of the instrument. The greatest care must be taken not to injure the gingival margin. In all cases the cutting of the alveolar walls should be done in such a way that the soft tissues will be against the root of the tooth

In all cases, whether tartar or bone has been removed or not, wash out with the syringe all the pockets with a solution of peroxide of hydrogen, containing I gr of perchloride of mercury to the ounce. Then syringe in a solution of 30 per cent of chloride of zinc. Repeat these two applications every day for a week. First the washing with peroxide, then the chloride. You now direct the patient to come every four days, and on each occasion syringe the pockets with peroxide as before, but instead of the chloride of zinc, introduce with a brush a few drops of the cinnamon, gaultheria and carbolic mixture, the formula of which has been already given.

At the same time the patient may be given this same prescription diluted with an equal quantity of oil of lemons, to be applied to the gums once a day with a brush — As a mouth wash, he may use the simple cinnamon water

Before closing this paper, I should like to again impress upon my readers the necessity of distinguishing between calcic inflammation, and phagedænic pericementitis, as the appropriate surgical treatment of the latter is huitful to the former, and that of the former quite inadequate to cure the more serious disease

TESTIGLE (Strangulation of).

E. Hurry Fenwick, FRCS

Strangulation of the Testicle by Rotation Torsion of the Spermatic Cond<sup>1</sup>—This accident, of which so little has been written, is held
responsible for many of the atrophic testicles Lauenstein (Hamburgh),
states that by a torsion of 180° which is usually the result of an
accident, so great a circulatory disturbance is created, that changes
in the tissue of the testicle are brought about which very closely
resemble the hæmorrhagic infarctions of the intestine caused by
emboli in the arteria mesaraica

The clinical features of the cases which are on record, eleven in number, are almost identical. The onset was usually very sudden and mostly due to some unusual exertion or violent whench of the body. The symptoms resembled those of strangulated herinia, in fact, in some of the cases this diagnosis was made. Vomiting and great pain in the testicle and groin were followed rapidly by swelling of the

organ (œdema, and redness) and constitutional disturbance. The testicle presented the same features in all the cases which were operated on

The testicle was shiny, darkly discoloured, more or less swollen, and surrounded by yellow or bloody fluid. The hæmorrhagic infarction was undoubtedly due to the twisting of the cord.

Bryant records a typical instance. A boy of fifteen had an incompletely descended testis of the left side. At first the symptoms resembled strangulated hernia, and he was at once operated on. The testicle was found almost black, and the spermatic cord was seen to be twisted upon its axis one and a quarter times. It was easily untwisted, and as it remained warm the operator decided to leave it A rapid atrophy was the result.

The treatment for the condition, if diagnosed early, within an hour or two of the accident, is to attempt to untwist the testicle by manipulation

It may be worth while to remember the fact that in five cases of right-sided inguinal testicle a left spiral twisting of the coid had taken place. This is similar (says Lauenstein) to the observation of Kusinei, that night-sided ovarian tumous tend to undergo a left spiral toision of the pedicle, and ovarian tumous of the left side tend to undergo a right spiral torsion. If the case is seen when inflammatory symptoms have ensued, immediate castration is probably the best course.

REFERENCES.—" "Annals of Surgery," July, 1894.

#### TETANUS.

Synopsis - Vol 1894, p 538) Injection of Tizzoni's Antitoxin.

# THROAT (Disease of).

Synopsis = (Vol 1894, p 539) Large doses of Potassium Iodide may relieve pain of carcinoma

# TINEA TRICHOPHYTINA (Of the Scalp). T. Colcott For, MB

Du Castel, has put the curative powers of **Chrysarobin** to the test in two hundred and fifty cases of ringworm, and, commencing with weak preparations to study the degree of tolerance of the patients, he has employed successively unguents more and more concentrated  $e\ e$  --

Ŗ	Chrysarobin Acid Salicylic		grammes	Ung	Styracis		
	Ichthyol	āā 5	grammes	Ung	Styracis Simplicis	āã 50	grammes
or B	Chrysarobin	20	grammes	Ichth	iyol		grammes
	Acid Salicylics	1		Ung	Styracis	100	granimes
or B	Chrysarobin	25	grammes	Ung	Styracis	COI	grammes

The layer of unguent was covered with a layer of collodion flexile, or of antiseptic plaster. He has also tited to make its action more energetic by applying a continuous current going to a strength of about 12 milliampères and lasting ten minutes. Whereas Unna cured his cases in a few weeks, showing the far less rebellious character of the Hamburg ring worm, Du Castel gives a table recording the fact that four to seven months elapsed in the great majority of his cases before a cure resulted.

Abraham, in the "Lancet," figures his apparatus made by Arnold and Sons, for the introduction of fluids into the skin under pressure. He epilates as many diseased haus as possible, and shaves the scalp. He then washes the scalp with soft soap and warm water, then with alcohol, and lastly with ether to remove fatty matter and debris. Applications of pure Creasote are made with the special apparatus every second or third day, and meanwhile the scalp should be kept muncted with an antiparasiticide, e.g., Carbolic Acid, Salicylic Acid, of each 3ss to 1 in 3j' of Lanoline Ointment or Vaseline

Noir<sup>2</sup> has adopted a treatment by **Hot Antiseptic Solutions** He cuts the hair close and scrubs the patch of ringworm of the scalp with soft soap and water Gauze soaked in a 1 in 2000 solution (at 50° C.) of corrosive sublimate is then applied and covered with oil silk and a gauze bandage The soaping and dressing are renewed daily.

References — ""Annales de Derm et de Syph" p 998, 1894, 2" Progrés. Méd "

Synopsis—(Vol 1894, p 543) Shaving, Washing with Antiseptic Soap Curetting diseased patches after Freezing with Ethyl Chloride Then applying & Hydrarg. Iodid Rub, gr. jss., Hydrarg. Perchlor, gr. ix, Sp. Vin Rect., \$1, Solve et adde Aq. Dest., \$v. M. Ft. Lot. After a time apply. & Hydrarg. Perchlor, gr. ix, Hydrarg. Iodid Rub, gr. jss., Emplast Simplicis, \$v. Ft. Emplast. Iodized Collodion painted on till crust forms, which is torn off and the part washed with Hydrarg. Perchlor Solution, i. in 500. & Alcohol at 95°, 12 grms., Metallic Iodine, 0.75 grms., Venice Turpentine, i. 50 grms., Castor Oil, 2.75 grms., Dissolve and add Collodion, 35 grms., or. & Alcohol at 95°, 5 grms., Ether, 5 grms., Metallic Iodine, 0.50 grms., Collodion, 30 grms. Introdermic injections of watery or alcoholic solution of Acid Sublimate (sublimate and tartaric acid o or to 30 grms of water). Losophan, i.—2% solution in alcohol and water. Shaving, washing and application of compresses of Corrosive Sublimate, i. in 2000 at about 122°. Fh. Croton. Oil, Oleate of Copper. Epilatory method by tearing off a dried layer of Salicylic Acid in Collodion.

#### TINEA YERSICOLOR.

T. Colcott Fox, MB

In a discussion on the bactericidal properties of **Losophan** at the Nuremberg Congress, 1893, Behrend said the treatments in vogue for pityriasis versicolor gave only temporary favourable results, because

very pale patches escaped observation, and fungus elements always remained undestroyed in the hair follicles Chrysarobin and Tincture of Iodine are on the whole the most satisfactory, but have great drawbacks Losephan was as good without the inconveniences

The writer is informed that **Benzine** is an excellent remedy much used in Fiance

## TOE-NAIL (Ingrowing).

Synopsis - (Vol 1894, p 546) Application of t part Pirafin and 2 of Tallow will often relieve

### TONSILS (Diseases of)

Tussaud' concludes that abuse of alcohol and tobacco are predisposing factors in the development of tubciculosis of the tonsils. As treatment he prefers the **Galvano-cautery**, carrying this not only through the diseased tissues, but into the surrounding comparatively healthy tissue, thus preventing absorption by forming a barrier of sclerotic tissue.

Babes,<sup>2</sup> has recently employed injections of the Serum of immunized dogs in treating human tuberculosis. The dose administered has varied from 5 to 10 grammes of antitubercular serum to which has been added a 1 per cent solution of Phenic Acid. The cases treated have been few, and as yet no positive conclusions can be drawn, but the author affirms that the tubercular patients subjected to the treatment have been benefited. He therefore recommends the employment of preventive inoculations of serum of strongly immunized dogs in children of tubercular parents, who are almost sure to become affected with the hereditary disease

An astringent pill in intestinal tuberculosis 3 -

R Cupri Sulphatis  $gr \ \frac{1}{2}$  | Extracti Gentianæ gr. ij Misce et fiat pilula i or i pills for a dose, repeated if necessary

REFERENCES — "Lyon Méd" April 22, 1894; 2" Bull Génér de Thérap" 3 "Practitioner," March, 1894

Synopsis.—(Vol 1894, p 547) Antiseptic Spray to clean crypts and instead of brushing in astringents. Mild Galvanic Current. Injection of swollen tonsils with Carbolic Acid, 2 to 100. Injection of Iodine Trichloride, 2 to 1000. For hypertrophy, Partial Ablation with Iodine Applications and removal of concretions. Friction on the cut glands with Iodine 1 part, Potassium Iodide 1, Distilled Water 4 to 6 grms. Paquelin Cautery with Cocaine (5%) to reduce tonsils. For those disposed to tonsillitis. By OI Menth Pip, 11 viij, Ac Carbolic Cryst, 51, 5p. Vin Rect, 51, M. Sig.—10 drops in cup of warm water as gargle night and moining. In suppurative tonsillitis paint with solution of Glycerine and Zinc Chloride (1—20) and 20 gis. Salol t. d. For hypertrophy of lingual tonsil. By Iodine Bichlor, gr. vij, Iodide of Potass, gr. xij, Ol Menth. Pip, 11 xij, Glyc. 5j, M. Paint daily

### TORTICOLLIS (Spasmodic).

Allan McLane Hamilton, MD, New York

Sinkler, after the use of **Counter-irritation**, **Galvanism**, and **Actual Cautery**, **Nerve-stretching** and other surgical measures, has obtained excellent results in the treatment of this disease by large doses of **Conum**, a drug which, in his opinion, is in every way better than belladonna or its alkaloids

REFERENCE - "Therap Gaz," March 15, 1894

### TREMOR (Mercurial).

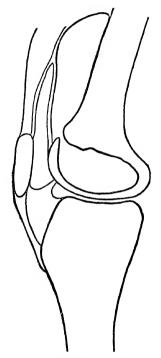
Synopsis — (Vol 1894, p 551) Douche, Pack, and Shower Bath, with Gymnastics, Massage, and Nerve Tonics

TUBERCLE (Surgical Treatment of). IV Arbuthnot I ane, FRCS. On the Use of Sulphur in Surgery -- In 1893 I published a paper in the "Lancet," entitled, "One of the best applications of iodoform in surgery," in which I described a new mode of using iodofoim in the treatment of tubercular disease of bones and joints. It consisted in carefully cleaning out and drying any cavity in a diseased bone can be done very thoroughly when the joint affected is in the extremities, since the circulation can be controlled absolutely. The cavity is then firmly plugged with iodoform which has been sterilized with car-In this way iodoform is used as a packing which, as it is very insoluble, occupies for a considerable time, with an aseptic material, a cavity which would otherwise have been occupied by blood in which tubercular organisms would readily multiply. Any tubercular organisms left in the wall of the bony cavity are destroyed by the products of the decomposition of the iodoform which is brought about by the living tissue I may say that this is the only use I now make of iodoform

Figs 39 and 40 represent respectively cavities in the femur and in the tibia and astragalus which were successfully treated by this method. They are of much interest since they were the two first cases in which I applied this mode of treatment. Even if the cavity of the joint has been fouled previous to the operation by the builting of an abscess or by surgical interference, after careful cleansing and the thorough removal of all tubercular material, the presence of a moderate amount of rodoform in a cavity in one of the bones entering into the formation of the joint will in all probability obviate any new growth of the tubercle bacillus in the part, while if the skin was intact before the operation the surgeon can guarantee with almost absolute certainty a successful result.

In the case of joints, such as the hip, sacro-iliac synchondrosis and

the various portions of the spinal column, it is often impossible to remove more than a proportion of the tubercular material present, or to plug any cavity in bone effectually with solid iodoform. The probability of success in these cases is often much lessened by the presence



of organisms other than those of tubercle. Feeling very dissatisfied with the results I obtained in these cases, I looked about for some non-poisonous drug, which, under the influence of living tissues would form products more powerfully germicidal than those which result from the decomposition of iodoform. It occurred to me that sulphin might produce sulphinous acid in sufficient quantity to be of service as a

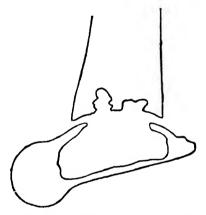


Fig 39 represents a vertical antero-posterior section through the knee Joint. The cavity in the femoral epiphysis is shown to communicate with a collection of tubercular material behind the synovial membrane of the articulation.

Fig. 40 shows a vertical antero-posterior section of the lower end of the tibia and astragalus, the latter especially being extensively destroyed and excavated by the tubercular process. This patient can now walk comfortably and gracefully, the ankle joint allowing of considerable freedom of movement

germicide, if it were placed in contact with a law surface. Consequently I used it largely in the treatment of cases such as I have referred to, and found that instead of its being a comparatively inert substance, when in contact with recently incised structures it produces materials which are powerfully caustic and destructive in their action, while at the same time a small quantity of sulphuretted hydrogen is evolved

It would seem that sulphurous acid is first formed, and that it rapidly becomes conveited into sulphuric acid. In my earlier cases I left the sulphur for too long a period in contact with the living tissues, and so produced an excessive destruction. Now, in a recent wound, it is left for only twenty-four hours, and this time is sufficient to render the part sterile. When the surface is a granulating one, as in any discharging tubercular cavity, sulphur is very much less destructive in its action, and can be introduced frequently with the greatest advantage.

When used in a recent wound the precipitated sulphur sterilized by being kept in t in 20 carbolic lotion is diffused through plain gauze either in its moistened form or mixed with a little glycerine, while for injection into tubercular cavities it is made into a cream with glycerine, when it passes easily through the nozzle of a syringe. It is used in the same way for tubercular ulceration of the bladder or rectum, where it acts with marvellous benefit to the patient

When the various joints of the tarsus or carpus are affected by tubercle, the emulsion of sulphur may be made to diffuse itself between the several bones by a little manipulation. Since I discovered the remarkable germicidal qualities of sulphur, I have never been obliged to amputate for tubercular disease, and I trust that by the use of this powerful remedy amputation for tubercular disease will not be required in the future.

In the case of lupus, sulphur applied on the raw surface causes rapid destruction. This may be hastened by scraping before the sulphur is applied, and if the lupus be covered by an epithelial layer, it is necessary to freshen the surface to enable the sulphur to act vigorously upon it. It is not only in the treatment of tubercular disease that sulphur is of the greatest assistance to the surgeon, but it is of equal benefit in the treatment of inflammatory processes resulting from the presence of organisms other than those of tubercle. For instance, in extensive ulcerative stomatitis, or in foul ulcers about the mouth, firm packing with gauze and sulphur rapidly cleans the surface.

I cannot illustrate its advantages in foul recent wounds better than by describing two instances of its use —

CASE I —A man fell forty feet, transfixing his torearm on the spike of a railing, which tore its way through the skin and muscles along the whole length of the forearm, much dirt and clothing being driven into the substance of the pulped and lacerated muscles. The hopelessly damaged pieces of muscle with the pieces of clothing and most of the dirt were removed, the skin cleaned, and gauze permeated with sulphur was introduced into every crevice of the lacerated muscles. This was removed at the end of twenty-four hours, when

the whole surface of the wound presented a grayish colour, owing to the presence of the superficial slough resulting from the action of the sulphuric acid generated. The pair was kept aseptic, and the sloughs separated, and a useful arm resulted. As far as my experience goes, I know no other means by which I could have saved the arm.

CASE II—A man about forty, of very alcoholic habits, sustained a foul wound of the dorsum of the foot, just behind the toes. Gangrene of the four outer toes and the adjacent portion of the foot developed in a few hours, and was associated with a rap dly spreading cedema of the foot and leg; in fact it was an acute infective spreading gangrene in a man who was saturated with alcohol. My first thought



Fig 41 -Representation of foot during healing

was immediate amputation, but on consideration. I determined to try the action of sulphui. The gangrenous part was cut away, the brawny cedematous tissue left was packed with sulphur, and the whole foot was wrapped in a hot compless. The sulphur produced rapid destruction, the brawny cedema and redness quickly subsided, and later the necrosed portions of the metataisal bones were removed. Fig. 41 represents the healing granulating surface left.

These cases serve to indicate sufficiently the immense advantages which the surgeon can derive from the use of sulphur. That the

physician may also find it of very great assistance in the treatment of tubercular disease of the lungs and air passages, is also very probable. It might be introduced by a needle into the apices of the lungs in the form of a glycerine emulsion, or it might be inhaled finely diffused through the air by some such means as a powerful bellows, In ulcers of the stomach it might act in a manner similar to that displayed in ulceration of the mouth, and many other modes in which it might be applied with reasonable hopes of success will suggest themselves to the reader

The following summarizes briefly the action of the drug --

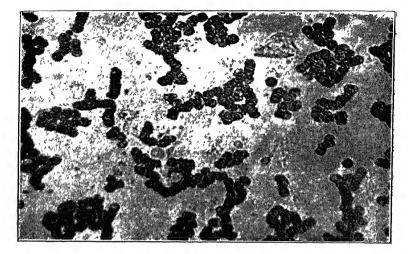
- (1,) Sulphur exeits no deleterious influence on the health of the patient
- (2,) It gives rise to products which are powerfully caustic in their action
- (3,) It destroys all organisms with which it comes into contact, whether in a cavity of in the tissues in the immediate vicinity
- (4,) It acts very much more powerfully upon recently incised tissues than upon granulating surfaces
- (5,) It does not interfere with the vitality of healthy cutaneous or mucous surfaces.
- (6,) Its action is rendered more uniform and general, and less violent, if it is mixed with glycerine in the form of an emulsion
- (7,) If used in a recent wound it should be removed at the end of twenty-four hours, but if used for an ulcerated surface or a tubercular or other cavity, or for tissues whose circulation is imparred, it may be applied at intervals for many days
- (8,) Precipitated sulphur is much more useful than the sublimed variety, owing to its finer consistence
- (9.) An abundant hot moist compress is often of service in increasing the activity of the chemical processes

## TUBERCULOSIS (Diagnosis of).

Robert Lincoln Wathins, MD, New York The Diagnosis of Tuberculosis by Means of the Third Blood Corpuscle—The gianular masses in the blood, or so-called third blood corpuscles, detected even with a low power microscope, are readily discernible. They occur in groups, or singly However, when in groups they are often so pressed together that it may be confusing at first to detect their shape, but a little experience will soon overcome this difficulty (see Plate XXIV, Figs. A and B).

The function or significance of these granular masses has long been a subject of theory or conjecture, but no positive use has ever been ascribed to them. Investigation has finally led to the conclu-

# PLATE XXIV



 $Fig \quad A$  Advanced case of Tuberculous, showing the tubercular granules (× 450)

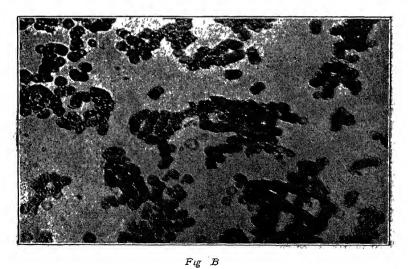


Fig B

sion that these masses, so long considered a normal element of the blood, are pathological and only pathological; not only so, but they are also pathognomonic in that they surely declare the presence of a tubercular diathesis

Still farther, the third blood corpuscle is the very first indication, even when all other signs are absent, and tuberculosis in any form is impossible without its presence in the blood. This third blood corpuscle makes its appearance long before the cough, or before any of the formerly recognized signs and symptoms appear. Not only is it found in pulmonary consumption, but in Potts' disease, hip-joint disease, chronic abscess, and lupus, which diseases are recognized by the best authorities as tubercular. It is also found in some cases of theumatism and asthma, and often in people who appear perfectly well, but it is always the foreignner of tuberculosis.

The statement has been made by many, and, of course, has been known for a long time, that certain slowly acting blood changes, called dysciasia, precede tuberculosis

From my experience, I believe the third blood corpuscle to be the sine quir non of the tubercle bacillus, and as such is one of the chief means of diagnosing this dyscrasia, which it produces. It is also undoubtedly one of the foods of the tubercle bacillus, and the only visible one in the blood. In a series of experiments, extending over many years, I have demonstrated that the tubercle bacillus will live in acute tubercular blood, but will not live in blood which does not contain the third blood corpuscle. The results of these experiments have been published in previous articles.

During the past few years, both in private practice and in the hospitals, I have examined the blood of many infants before and after nursing or feeding, and have found that a baby in unhygienic surjoundings, will have this third blood corpuscle produced in its blood in from three to ten days by using sweetened water and milk, or by over-sweet condensed milks

The third blood corpuscle is very often discovered in the blood of infants born of tubercular mothers, while it has never been discovered by me in the blood of infants born of non-tubercular women, when, from the very beginning, they have been nourished by their mothers' breast

The following are some of my recent cases, which may well illustrate the diagnostic value of this corpuscle —

A few days ago a young lady called to have her lungs examined She had been staying indoors a short time on account of a cold, but the night before something came up in her throat like blood. I examined her chest, and so did another physician. Nothing was discovered, except a little rough breathing. On examination of the blood, I found it loaded with these corpuscles, which decided me in the diagnosis of hemorrhage and tuberculosis. Two days after, while going up stairs, she had a severe hemorrhage, with some fever, and which has been since followed by other similar attacks. At the present time (two weeks after) she is in bed with high temperature and night-sweats. In my experience such a case is not uncommon

Mrs H—— came to me with a supposed cancer on the forehead It was a round ulcer, about one and a-half inches in diameter, and was most painfully sensitive. The neuralgia was quite extensive, radiating from the ulcer all over the head. There were also little nodules here and there over the forehead. This ulcer had been coming on about a year. A microscopical examination of the blood showed the tubercular third blood corpuscle present, and I then made a diagnosis of tubercular ulcer or lupus, and not cancer, which diagnosis has since been confirmed.

Mr. H——, a single man, came to me only a few days ago, complaining of a cough, with expectoration and pains in the chest, his history showing that most of his family had died of tuberculosis. A physical examination of his chest revealed evidence (in connection with the history) which strongly favoured the diagnosis of commencing consumption. But on examining the blood no corpuscles were found, therefore the patient was at once set at rest by the assurance that no tubercular trouble existed.

These cases are only a few selected from many, to show practically that experience has confirmed the pathological character of this third blood corpuscle. I present this view to my brethren, hoping that they will be assisted in their diagnosis as I have been, in the incipient stage of tuberculosis, most difficult often, to discover, and most important to the patient, in that the disease at that stage is more controllable than at any other time

I want to emphasize especially the value of the absence of the tubercular granules from the blood, which enables us to state indisputably, that no tuberculosis is present. The symptoms, although possibly suggestive of tuberculosis, must therefore be caused by some other disease.

REFERENCES —Pan-American Medical Congress, "Transactions," Sept, 1893, "Medical Record," July 17, 1894

[Editorial]

Osler remarks that the symptoms of a profound intoxication in tuberculosis are met with under three conditions. First in those

rare cases, described most commonly in children, in which death may occur with symptoms of a profound toxemia before there are any extensive localised foci of disease "The children have presented in the course of the disease all the signs of a profound intoxication, and as the tuberculous lesions of the lungs and all other organs are altogether insufficient to produce death, it is quite reasonable to attribute the fatal results to the bacillary intoxication" These are the instances of the fiévre infectieuse tuberculeuse suraigue. Second, acute miliary tuberculosis is often accompanied with toxic features, giving to many of the cases clinical pictures of severe typhoid fever Post mortem. miliary tubercles are found extensively throughout the viscera and on the serous surfaces Third, in chronic pulmonary tuberculosis there may develop, with or without fever, a profound toxemia, with dry tongue, delirium, rapid pulse, and signs of intense intoxication. The patient may be admitted to hospital unconscious, with a normal or subnormal temperature, and, as in a case admitted into the Philadelphia Hospital, the autopsy alone reveals the true nature of the disease

The case alluded to may perhaps be regarded as an instance of the febris tuberculosa peracuta. The striking features were the existence of a local tuberculous adentits in the group of left cervical lymph-glands, a imiliary tuberculosis of very moderate intensity in the liver and spleen, and a clinical picture of the most profound toxemia.

Miller<sup>2</sup> considers that Bier's Method of inducing congestion as a remedy for articular tuberculosis is deserving of further trial broad elastic band is placed round the limb above the diseased pair sufficiently firmly to produce venous congestion. Bier recommends that this congestion should be kept up continuously, and that the patients should be permitted to use the limb The elastic band should be broad, and a layer of lint or wool should be placed under it to pro-The distal portion of the limb is supported by a tect the skin. bandage up to the affected part, so that the congested area is limited to the immediate neighbourhood of the disease Miller states that this method is a useful one, and deserves further trial He prefers intermittent to continuous compression, as the former method is attended with less risk and is followed by equally good, if not better,

REFERENCES.—\* "Philadelphia Med News," Dec 2, 1892, 2"Edinburgh Med Journ," Feb 1894

Symopsis — (Vol. 1894, p. 552) Iodoform Injections. Essence of Cloves, 10% in Olive Oil, as injection Injection of 3 or 4 drops Zinc Chloride, r in 40 solution Salicylic Acid in diachylon ointment, the most useful palliative application to diseased tissue

TUMOUR (Gerebral). Allan McLane Hamilton, M. D., New York

Mr Hoisley, referring to the incurability of cerebral tumours by drugs, goes further than many others because he does not admit that gummata are really affected by antispecific treatment. While he admits that the use of large doses of Iodide of Potash will cause a moderate abatement of the symptoms in this as well as ordinary tumours, and a rather striking though tempolary effect in specific lesions, he finds that autopsies do not show any conspicuous reduction in size of the growth. Though improvement under iodide of potassium occurs in many instances, it does not follow that it is an index to the nature of the case. As regards tubercular nodules, everyone must have seen more than one case in which the symptoms of the tuberculous tumour were present, including the closing of the symptoms, but in which total remission of the same occurred and the patient ultimately survived, unfortunately, as a rule, blind Such tuberculous nodules have been found at post-mortem examinations densely fibrous and with caseated centres. Clearly, therefore, in the case of tuberculous disease, tieatment by Arsenic, Cod-liver Oil, etc., is justifiable for a certain time, the duration of which may be longer than in the instance of iodide of potassium, four months, for instance, as against two

REFERENCE — "Brit Med. Journ," Dec 23, 1893.

# TYPHLITIS. (See "Appendicitis.")

The therapeutic indications according to M Grasset, depend on whether there is an actual acute inflammatory attack, or whether the case is one of recurrent typhlitis between the attacks, or whether there is typhlitis with persistent cæcal engorgement. In the last-named case medicinal treatment usually fails, and an appeal to the knife becomes In the case of a recent typhlitis with acute exacerbations the physician may treat the appendicular colic, combating the pain with warm baths, evacuating the intestinal contents, and, if possible, resolving the inflammation M Grasset fulfils these various indica-(1,) A full Warm Bath of from half an hour to tions as follows an hour in duration is given; (2,) Every hour the patient is to take a teaspoonful of a purgative potion, consisting of I part each of Castor Oil and Oil of Sweet Almonds and 2 parts of Syrup of Lemon, until a copious evacuation of the bowels has been produced, (3,) The iliac region is to be anointed with an ointment consisting of Mercurial Ointment and Belladonna, and this is to be followed by the application of a large, hot, thin poultice of Linseed Meal. In very stubborn cases M Grasset adds to the purgative potion a diop of Croton Oil.

In cases of recurrent typhlitis the treatment during the intervals

consists in preventing overloading of the intestinal canal and in the use of antisepsis, revulsives, and resolvants to the seat of inflammation. For this purpose he advises (1,) A diet that leaves little residue, (2,) Every week the application of the Actual Cautery to the painful and infiltrated region, also every day, or as often as may be necessary, frictions with an ointment containing Belladonna, (3,) To overcome constipation, at bedtime a laxative pill, consisting of  $\frac{1}{6}$  of a grain each of Powdered Belladonna, Extract of Belladonna, and Podophyllin, (4,) The insurance of intestinal antisepsis by taking before and after each meal a capsule containing 7 or 8 grains of Benzol-naphthol.

REFERENCE -" New York Med Journ," Jan 27, 1894

### TYPHOID FEVER.

Synopsis — (Vol 1894, p 553) Cold Bath, Quinine, Antipyrin, Antifebrin, Phenacetin Calomel probably best intestinal antiseptic, 8 to 10 grs three or four times in the first twenty-four hours. For gastric antisepsis Bismuth and Charcoal, for small intestine Salol, Sodic Salicy-late or Benzoate, Camphor or Ammonium Benzoate, and for large bowel β-Naphthel or Charcoal, for mouth Saccharin. Carbolic Acid Pills, gr 2½ to 3, coated with Keratin, are theoretically indicated

### TYPHUS.

Di Knox Bond points out the unsatisfactory results accruing from the use of drastic drag treatment, which is strongly deprecated In his series of cases the following simple measures were carried out. Each inmate of the eight-bedded wards had a cubic space of 2,800 cubic feet and floor space of 225 square feet allotted him, in wards freely lit and ventilated by large window spaces, and heated by open fire-places Diet during the acute stage consisted chiefly of nulk and beef-tea, eggs and bread were also allowed to milder cases, and Fish was given as soon as the tongue cold water ad libitum moistened after crisis, meat when the tongue became clean in convalescence Constipation was relieved by enemata or castor oil This comprised the entire treatment in many cases A mixture containing dilute Hydrochloric Acid and Gentian was given as a placebo to several patients Symptoms were dealt with by appropriate nemedies as they arose Enemata of hot water at 110° F, or of starch, were serviceable in the treatment of diarrhea. Opium, so useful an addition to the starch enemata in typhoid diarrhoa, was badly borne here An expectorant mixture, containing Oleum Terebinthinæ ill x-xx, was most useful in the mixed condition of bronchitis and lung congestion which is the pulmonary associate of this fever Inunction of Oleate of Mercury (10 per cent) was of some value in cases of parotid swelling. The benefit attending the use of Sulphonal as a hypnotic was undoubted. Sleep was induced, and delirium calmed. Added experience led to caution in its administration where profound cardiac failure existed, associated with severe pulmonary and renal symptoms.

Referring to the resemblance presented by the clinical symptoms of typhus to the effects of alcohol, Dr. Bond says that alcoholic stimulants are as madmissible as it would be (were it possible) to inflict a further dose of the typhus poison. All that alcohol can do for the heart is outdone by the already-present virus of typhus fever. Each acts primarily as a cardiac stimulant, and each, later on, when degenerative change has commenced, is equally hurtful in robbing the flagging organ of rest, the factor imperatively needful to recovery in the now debilitated condition of the cardiac muscle. Dr. Bond knows no valid reason for the retention of alcohol as a remedy in the treatment of this disease.

REFERENCE —" Practitioner," June, 1894

Synopsis — (Vol. 1894, p 556) Alcohol, Ammonia, Nux Vomica and Quinine are indicated. For exhaustion, Musk in full doses. Saline Purgatives, eg, sulphate of magnesia or enemata or calomel in fractional doses. Salol by mouth or rectum as antiseptic. Permanganate of Potassium as rectal injection. Ipecacuanha for gastric catarih, avoiding other emetics. Chloral for severe headache, delirium and insomnia, or Hyoscine. Insomnia without headache may be met by Valerian or Camphor. For fever, Quinine or Tepid Baths. Strychnine in marked prostration and collapse.

### ULCUS MOLLE.

Synopsis—(Vol 1894, p 558) Scrupulous Cleanliness Local Hot Baths, 40° C Caustics, eg, chloride of zinc i part, zinc oxide 9 parts, and water to form a paste Next, mild Antiseptics in powder or solution, eg, 10doform, aristol, etc Tonics internally Tartrate of Iron and Potassium internally and externally said to be specific in phagædena, or washing morning and night with Boric Acid water as hot as possible, application of Silvei Nitrate Solution, i in 20, dressing with Iodoform.

### ULCUS CRURIS.

T. Colcott Fox, M B.

Rosenthal' starts with the fact that the majority of leg ulcers follow varicose veins, and lead to chronic cedema and a callous induration of the borders of the ulcer. This complication has been met by such resources as Thaden's Dressing, strapping with Yigo's Plaster, Indiarubber Bandaging, etc., but Unna's Glyco-gelatine Treatment is the best. However, the retention of secretions, sometimes abundant, is a great bother. Rosenthal attempts to get over this difficulty by making the dressings fenestrated. It should only be used where the ulcer does not surpass the palm of the hand in size. He also does not use it

if the periphery is too eczematous He covers the ulcer with a watch-glass, and paints the leg with glyco-gelatine and applies a tarlatan bandage. Then a second painting and a second bandage. The glass is then removed and the immediate neighbourhood of the ulcer is dabbed with a little wool dipped in the gelatine. The borders of the diessing near the ulcer are protected by collodion. Kaiewski did not believe. Unna's method was very good, or could cure big ulcers. He believed in daily dressing the ulcers in a thoroughly aseptic manner, and when the ulcer was healed the glyco-gelatine was very useful for a time. Good treatment was to extirpate the varices and graft the ulcers.

Several other authors give their particular modification of Unna's treatment, which was published in 1882

Borschtscheff,<sup>2</sup> covers the healthy part of the leg up to the limits of the ulcer with the following glyco-gelatine, (gelatine, 10 grammes, oxide of zinc, 10 grammes, glycerine, 10 gr water, 30 gr) Weeping or eczematous regions surrounding the ulcer are first powdered with iodoform and then painted over A further coating of collodion makes the diessing more resistant and lasting. The ulcer is treated according to the particular indications, and then the limb is bandaged. The ulcer should be diessed at first every fourth or fifth day, afterwards, every eight to ten days

Iliushkoff,<sup>3</sup> recommends the treatment as cheap and easily applied. First of all a hot foot-bath is given and the leg carefully cleansed with soap and a brush, the ulcers are then disinfected with a solution of corrosive sublimate of the strength of I in 1000. They are then—if not too painful—well rubbed with gauze soaked in the sublimate solution, dried with cotton wool, and sprinkled over with dermatol. Zincated Gelatine is then applied in its liquid state over the whole leg and a bandage carefully put on, each turn being covered with more of the gelatine. This may usually be left untouched for at least a week

Van't Hof,4 of Liege also speaks highly of a treatment conducted on similar principles

Frank,<sup>5</sup> treats ambulant patients suffering from chronic ulcer of the leg as follows. The granulations are first thoroughly cleansed, and if hypertrophic, are treated with **Silver Nitrate**, if putrid, with **Iodoform**, and so on. The leg is washed, shaved, and painted up to the ulcer with Unna's glyco-gelatine. The sore is covered with gauze and the limb bandaged with gauze. A firmer and more lasting support is made by covering this gauze with another layer of glyco-gelatin and bandaging over that again. An abundant discharge renders the re-

newal of the diessing necessary every few days. A 10 per cent resorcin plaster promotes epithelial form ition when the granulations are healthy. For unusually callous ulcers datchylon plaster strapping and flannel bandaging are necessary. He gives the following formula for the glyco-gelatine.—

B. Oxide of Zinc	30 parts   Glycerin	50 paits
White Gelatine	40 parts   Water	90 parts

This may be melted in a glue-pot as required

We may take this opportunity of mentioning that Menahem Hodara' after full trial considers the following formulæ the best —

	Soft Jelly				
R Aquæ	55 0   Glycerını 12 5   Zinci Oxidi	12.2			
Gelatınæ	125   Zinci Oxidi	20 0			
	(Melts at 100° F, and sets at 82° F)				
	Hard, Very Contractile Jelly				
R Aquæ	50 0   Glycerini 15 0   Zinci Oxidi	100			
Gelatınæ	150 Zinci Oxidi	25 0			
	(Melts at rore F, and sets at 87° F)				
Cheap Jelly for poor people					
R Aquæ	50 0   Glycerini 10 0   Zinci Oxidi	100			
Gelatimæ	100 Zinci Oxidi	30 0			

Antiseptic Powder—The following formula has given Di A Pick,7 very satisfactory results in all cases where iodoform is ordinarily employed—

B. Corrosive Sublima	L 3 8 ( 2 Ct8)
Boric Acid	$\tilde{g}_{j}$ (31 grme)
Tannic Acid	io grains (60 ctg)
Milk Sugar	sufficient for Ju (62 grme)

I grain of coilosive sublimate, in this mixture, gives a 1 in 5000 trituration of bichloride, and I grain, one of 1 in 3000. The sublimate should be mixed very gradually and thoroughly with the milk sugar—the other ingredients being slowly added one by one, in order to obtain a uniform distribution of the bichloride. The author states that this powder is more reliable than any iodoform preparation, and has no odour, the boric acid and milk sugar are both protective as well as antiseptic, and the milk sugar prevents, besides, the deterioration of the bichloride. The tannic acid may be omitted, in case its desiccating or styptic action is not wanted

Lucas-Championniere has suggested the following for an antiseptic powder iodoform, powdered benzoin, powdered cinchona, carbonate

of magnesium, of each equal parts, with a few drops of oil of eucalyptus

Gilbeit effected a cure of advanced valuese ulcers in about three weeks by the application of **Europhen**, alternately in dry powder, and a 2 per cent ointment

Defalein and Neuberger9 spoke highly of this drug

Julius Schmidt<sup>10</sup> tested in five cases of obstinate ulcers of the leg, the odourless, tasteless, non-poisonous, insoluble, powdery combination of bismuth, sulphur and salicylic acid, known as **Thioform**—The ulcer having been cleansed and disinfected, the thioform was thickly dusted over it and covered with cotton wool and a bandage—Every fourth day the whole diessing was changed, and a cure resulted in two to three weeks

Hoffmann likewise plaises thioform, as non-toxic, hæmostatic and easily manageable

Doumer of Lille, claims most satisfactory results in many forms of ulcers of the legs by **Static Electricity.** The ulcer is first washed with some antiseptic solution, and then covered with a thin layer of absorbent cotton wool. The patient is then placed on an insulating stool and connected with the negative pole of an electrical machine. The positive electrode is now brought near enough to the ulcer to cause the passage of the electrical ama, but not that of any spark. This ama is allowed to play on the part affected for about ten minutes, and cotton wool dressing is then applied. These sittings are repeated twice a week.

Endinger in extols the effects of Massage After the preliminary cleansing and disinfection, the part is massaged, not with the whole hand but with the tips of the fingers, previously greased with boracic acid vaseline By this means the amount of pressure can be effectually graduated, while these effleurages appear to exert a distinctly sedative influence on the peripheral nerve-endings The operator begins at the upper part of the leg above the ulcer working from above downwards towards the latter in a concentric manner The amount of pressure applied and the duration of the sitting vary according to the condition of the skin around the ulcer The edges of the ulcer are likewise massaged, more or less energetically, according to the degree of indusation of the tissues The operation is commenced on the upper edge extending gradually from thence along the lateral edges to the lower margin of the ulcuration Lastly, the effleurages are continued over the portion of the leg below the ulcer

In cases of gray, samous, torpid ulcerations, the floor of the ulcer should also be massaged, being previously covered with a piece of linen smeared with boracic vaseline over which the operator runs his fingers.

Each sitting lasts from ten to fifteen minutes. The parts are massaged every day at first, but as the condition of the leg improves and the ulcer begins to heal up, the treatment is repeated at gradually longer intervals.

All pain disappears at the end of a few sittings (from two to six) and sensation returns to normal in the neighbourhood of the ulcer. From this time the latter rapidly heals up.

Complete recovery took place in the cases reported by Dr Endinger, in from thirteen days to two months, according to the size of the ulcer, and it is noteworthy that several of these patients continued to attend to their occupations throughout the whole course of treatment.

Witthauer 12 strongly recommends Sozoiodolate of Mercury (1 part to 90 of lanoline and 10 of olive oil) in the treatment of ulcers of the leg and foot. After thorough cleansing this preparation is applied night and morning spread on lint, and firmly bandaged. Any sluggish raw areas should be scraped and sprinkled with a powder composed of 1 part of the sozoiodolate to 9 of talc. Any burning pain 18 slight and transitory

Diver<sup>13</sup> obtained good results in two by the use of **Chlorine Gas**. The gas used was formed by pouring about 2 drachms of potassium chlorate, with r drachm or more of hydrochloric acid, into a pickle or marmalade jar, the outside of which was covered with brown paper. After this a disc of white paper was introduced, and on top of the paper a sufficiency of absorbent wool, a large cork was then fitted to the neck of the jar. The wool, yellowish green on the surface when at first exposed to view, was then placed over the ulcer in each case and quickly covered by gutta-peicha tissue and bandaged as usual. No rest was enjoined. The gas was probably chiefly chlorine with some perovide of chlorine in mixture

REFERENCES—" "Ann de Deim et de Syph" p 473, 1894, 2" Wratsch," t xv, 3, p 71, 1894, 3" Lancet," June 16, 1894, 4" Journ de Méd et de Chir Prat," May 10, 1894, 5" Journ Amer Med Assoc," vol xxii, No 6, 6" Monatsch f Piakt. Deim," Maich I, 1894, 7" New York Med Journ," lix, p 432, 1894; 8" Brit Med Journ, Jan 13, 1894, from "Balneologisch. Centralb.," 11, B; 9 Nuremberg Congress, 1893, ""Therap Monatsch," April, 1894, 12 Thesis quoted "La Sémaine Méd", "2" Archiv. f Derm u Syph," Band xxvi, Heft 3, 13 Clin Soc. Lond

Synopsis — (Vol 1894, p 557) Europhen as dusting powder after washing with 3% Carbolic Solution. Alumnol For discharging painful ulcers & Ac. Salicyl, 8 parts, Ac Boric, 4 parts, Zinc Oxide, 3 parts,

Starch, Talc āā 30 parts Resorcin Ointment, 3 to 5%, relieves pain Friar's Balsam, 3j—ij in 3j Zinc Ointment nearly specific for indolent sluggish ulcers Packing deep varicose ulcers with Iodoform Gauze, dusting with Dermatol and covering with absorbent wool compress over which a large smooth sponge wrung out of water is applied. In shallow ulcers a compress of solution of Aluminium Acetate is applied direct, covered with waterproofing, and the sponge applied over all, and the limb bandaged up from the toes Simple wet compress, together with pressure by means of the sponge is useful

### URÆMIA (Treatment of).

W Blair Stewart, A.M., M.D., Philadelphia, Pa.

Di Beveiley Robinson' says that, although there is considerable doubt in regard to the cause of uraemia, we know sufficient to interpret it in the acute of chronic form, and we no longer believe that it is due to urea or ammonia. Cold and errors in diet are important causative factors, and, when due to the former, the patient must be confined in a warm room and bed. If the skin is dry and inactive give hot-air or hot-water baths, followed by wrapping in blankets, to produce free sweating. If there is evidence of renal congestion, place dry or wet cups over the renal region, accompanied by dry frictions of the skin

When diet is at fault, milk must be given exclusively for a time, and the patient must breathe pure air and take moderate exercise, but he emphasizes that fatigue, emotional excitement, and even slight intercurrent disorders will be prejudicial

The indications for treatment are to eliminate the poison and to neutralize it as far as possible Diuretics will often accomplish the first indication, and for this purpose the Potash Salts are often employed with benefit, but their poisonous effects are such that the amount taken should be carefully limited Infusion of Digitalis also presents distinct objections when the kidneys are almost impermeable or the renal tubules clogged, when there is a spasmodic vasculai condition or a passive hyperæmia. It tends to increase the contraction and hyperæmia, and, as the kidneys cannot eliminate it, there is a cumulative result accompanied by obstinate nausea and vomiting Digitalis only increases uramic symptoms when given in large doses. When weak heart is a primary factor in uræmia, digitalis can be given with good results in some cases Diaphoresis and active purgation remove considerable water from the body, but when compared with bloodletting, the poisons removed are about nine-tenths less, less water will pass through the kidneys, and they will recover less rapidly.

The writer also upholds the use of moderately cold water by

high enemata, with the object of causing contraction of the ienal vessels through reflex stimulation of the abdominal nervous centres, and by increasing vascular tension through absorption of the water and filling the vessels, thus promoting diuresis, and diluting the poisonous matters in the blood. A portion of the injected water is expelled with fermented ingesta, but the author's experience shows that much of it is absorbed. A most happy result was obtained in one case where the vitality was so low that it was necessary to use the injections at blood-heat, and to which had been added I per cent of common salt. They were given several times daily with a douche-bag and a medium-size. long, soft catheter of red rubber attached to the nozzle of the douche-bag with the patient in the doisal decubitus. No convulsions followed, the pulse improved, the heart's action was strengthened, and an increased flow of unne followed symptoms in this case were caused by renal insufficiency, although the course of the disease was a fatal typhoid

When other means have failed and the case is menacing, recourse is had to venesection or blood-letting with cups or leeches. Coma and convulsions sometimes disappear during this treatment. Twelve to twenty ounces can be drawn from a robust plethoric patient, but in delicate subjects caution must be observed as to the amount taken and, in some cases, the blood abstracted must be replaced by saline transfusion. "The operation of transfusion in the treatment of unemax may be at times very useful in tiding over an imminent period and, perhaps, in enabling the patient to recover, when without operation he would surely die."

When these methods are contra-indicated hypodermic injections of warm Sterilized Sall Water (1 per cent) should be given As a rule they are free from pain, and are absorbed even though the patient is at the lowest ebb. Uranic conditions coming at the end of acute or exhausting diseases are greatly benefited by these injections. In one case one-half pint of salt solution was injected hypodermically. Chloroform ariesthesia is very safe, is indicated in ariemia, and in convulsions previous to blood-letting, so that contractions may not interfere with accurate venesection, the administration being guided by the pulse

Opium is rarely of value in these cases, and Chloral given by the mouth of rectum may replace it with good results, if administered in moderate doses. In one case Pilocarpine hastened death, which was preceded by profuse salivation, cedema of the lungs, and profound heart weakness. It is beneficial if it

produces diaphoresis only, without other untoward effects author recognizes that these remedies do not meet the underlying pathological causes and, for this reason, places great stress upon diet Milk is his sheet-anchor, but egg, cheese, and boiled meat may be added very cautiously and under ligid instructions testinal fermentation is a great exciting cause and must be met with intestinal antiseptics Among symptoms requiring attention are dyspnæa and congestion of the lungs which are met by counterirritation and cupping, great oppression of breathing by inhalation of Amyl Nitrite or Nitro-glycerine, or Oxygen and Nitrogen in combination, delinium by Chloral; nausea by Lime-water, Vichy, Brandy or Iodine; and collapse by hypodermic injections of Coca, Strychnine or Ether. Dr. Chailes T Parker and Dr. W. Brinsmaid of the Chambers Street (NY) Hospital highly endorse Yenesection and Intravenous Saline Infusion in treating uramic coma and convulsions, and relate valuable cases in their letters to the author

P. Jacob,<sup>2</sup> in treating a case of leucæmia with an organic extract made from the spleen, found that there was a connection between leucocytosis, the excretion of unc acid, and the xanthin bases, as the leucocytes were decreased, and the unc acid excretion was greatly increased a number of hours later, but the exact bearing of this experiment is uncertain

Tincture of **Yeratrum Viride** is administered by the mouth, in 10 to 15-drop doses, every hour; or hypodermically in 5-drop doses in the uræmia of pregnancy (eclampsia) with good results, but is very depressing Cases are reported in the "Medical World," October, 1894

Dr Gloss says that, in letention of urine for from three to four days, death will ensue from unemic poisoning, but Dr J H. McCartney³ reports the case of a Chinese mained lady, about twenty-one years old, where the urine had been retained after child-bilth, with slight dribbling only, for eleven days, and when removed under anæsthesia, there were nearly six and a half quarts. She had great pain, high fever, but no ligors of convulsions, and made an uneventful recovery. Ross⁴ reports a case of suppression of unine for twelve days in a ten year old boy who was suffering with malaria. No urine could be obtained by using a catheter Although he suffered with anæmia and mild uræmic symptoms, he made a good recovery in two months.

Dr Kaufmann's experiments upon the formation of urea have shown the following results. (1,) The blood always contains less

497

urea than do the tissues; (2,) Nervous tissue, the spleen, and muscles, contain a proportion of urea which is about similar in all, (3,) The liver contains a proportion of urea which is about double that contained by any other tissue. He therefore concludes that urea is formed in all the tissues, but principally in the liver

Dr Peabody's administers full doses of **Urethan** hypodermically to control the convulsions of uræmia He considers this drug a perfectly harmless remedy, freely absorbable, quite unirritating, and painless

Piperazin is one of the most recent drugs in treating the unic acid drathesis. Di D D Stewart's summarizes the influence of this drug on the unine, and especially on unic acid and unea excition as follows. "So far as I can see, since piperazin does not increase unic acid excition, and apparently does exert a salutary effect upon the unic acid condition, the only mode of action possible is such as has been attributed to certain of the alkalies, eg, the regetable acid salts of potash. The increased alkalinity of the blood these latter produce is supposed to promote oxidation, increasing the formation of urea, and, perhaps, also, transforming a modicum of the unic acid by oxidation into the former, or into a second more oxidized product than uric acid, such as bodies of the alloxan or allantom series."

REFLRENCES — " "Medical Record," Mar 17, 1894, "Deutsche Med Woch," No 32, 641, 1894, " Medical News," Sept 15, 1894, " Medical Record," vol xliv, p 815, " Medical Bulletin," p 389, 1894, "Medical Record," Mar 17, p. 343, 1894, " Therapeutic Gazette," Feb 15, p. 92, 1894

Synopsis — (Vol 1894, p 559) Milk and Diuretics generally, Intestinal Antisepsis, Venesection, Inhalations of Oxygen Digitals if cardiac weakness exist, and provided no violent gastro intestinal symptoms be present

## URETER (Surgery of). A W Mayo Robson, FRCS.

The surgery of the ureter has seriously engaged the attention of surgeons during the past year, and as the result of experiments on animals, successful operations resulting in the saving of kidneys which must otherwise have been sacrificed, have been performed. Not only can an accidentally divided ureter be successfully joined, but where it is thought desirable, the ureter can be united to the intestine, thus diverting the stream of urine from the bladder.

Christian Fenger, in an admirable article on the surgery of the ureter, contends that intra-peritoneal operations upon the ureter, wherein the urine is not absolutely aseptic, should not be undertaken, if an extra-peritoneal operation is possible, on account of the danger of peritonitis.

Catheterization of the uneters from the bladder for purposes of diagnosis is reasonably practicable in the female by the methods developed by Simon, Pawlik and Kelly. In men, catheterization is practicable only through epicystotomy

Catheterization of the uneter from the bladder as a curative measure for the evacuation of hydro- or pyo-nephrosis has occasionally been performed successfully (Pawlik), but nephrotomy and the attempt to find and remedy the stenosis of the uneter from the pelvis is the better method of treatment

Unetero lithotomy is a safe operation by the extra-peritonical method. Suturing is unnecessary. Drainage down to the wound is sufficient, and the wound heals without stenosis.

Intra-peritoneal uncterotomy should be done only when the extraperitoneal operation is impossible, and should be completed by careful suturing, covering with a peritoneal or omental flap, and drainage

Opening the peritoneal cavity to locate the seat of the stone may be necessary, but when once the diagnosis is made, the extra-peritoneal operation should be proceeded with

A stricture of the ureter may be treated by longitudinal division of the stricture and transverse union of the longitudinal wound (Fig 42) For extraperitoneal operations a continuation of the oblique incision foi lumbar nephiotomy from the twelfth 11b to one inch anterior to the ilium and along Poupart's ligament to about its iniddle, is advised

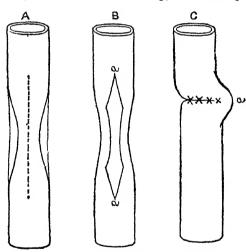


Fig. 42—Fenger's plan of operating for ureteral stricture on extra-peritoneal surface of ureter. A Ureter showing stricture and line of incision. B Opening through stricture extending into the proximal and distributions of the ureter. The extreme ends of the incision a and a to be united. C. Ureter after suturing , a the bend at the site of the stricture.

Unetero-uterine and uretero-vaginal fistulas can be treated satisfactorily by kolpoklessis, nephrectomy, or under favourable conditions by implantation of the ureter into the bladder

Complete transverse wounds of the uneter should be treated by Van Hook's method of unetero-uneterostomy, if possible, or if near the bladder by implantation into that viscus

Loss of substance of the uneter too extensive to permit of ureterouncterostomy or too high up to admit of implantation into the bladder, may be treated by implantation into the skin or bowel. Implantation into the bowel is almost certain to be followed by pyelonephritis. Implantation on the skin may have to be followed by secondary nephrectomy, which however is less dangerous than the primary operation

Howard A Kelly employs two methods in examining the nicters —

- (1,) Palpation—The uncter can be palpated through the anterior vaginal wall from its termination in the bladder up to the point where it passes the broad ligament—Behind the broad ligament the tube can be felt up to the pelvic brim, if the examination be made per rectum, especially if the uncteral sound has been previously introduced. At the brim it can be palpated through the abdominal wall at a point 3 to 3½ cm outside of and a little below the promontory, where pressure on an inflamed or sensitive tube always causes pain and sometimes a desire to urinate
- (2,) Catheterization and Sounding.—By catheterization, urine from either kidney is obtained, on examination of which the site of disease can be determined. The uneteral sound is used (1,) as a guide to the position of the uneter in hysterectomy or in the removal of pelvic tuinder, and (2,) as a means of diagnosing and curing by dilatation stricture of the uneter. If the stricture be in that part of the ureter anterior to the broad ligament, it can be dilated through the bladder

In one case, in which the stricture was behind this, the authormade a uretero-vaginal fistula, dilated the stricture by passing the sound through this, and afterwards closed the fistula by suture

Di Kelly<sup>3</sup> describes a successful case of unetero-uneteral anastomosis. During the performance of abdominal hysterectomy for myoma of the uterus, a large dilated uneter was cut under the impression that it was a vein. On removal of the uterus Dr. Kelly dealt with the divided uneter in the manner devised and successfully practised by Dr. Van Hook upon the dog. The upper end of the lower portion of the uneter was tied, and a longitudinal slit, one c.m. in length made in its anterior wall 5 c.m. below the ligature. A fine silk suture was then passed through the posterior wall of the lower portion from without inwards 5 c.m. below the lower angle of the sht, this was brought out through the slit and caught in the outer coats of the upper portion of the uneter 2 mm. from its end, and then

carried back into the slit, emerging through the wall of the ureter close to the original point of entrance (Fig. 43). A second suture was



Traction sutures, SS, in place ready to invag-inate upper end of ureter into

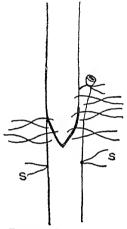
passed at a point directly opposite, catching the upper end in a similar manner

By making traction on these sutures while holding the slit open, the upper end of the ureter was readily invaginated into the lower (Fig 44)

These sutures were now tied, and in order to avoid the risk of urine regurgitating through the slit, the edges were sutured to the intussuscepted portion with about ten fine silk intersupted rectangular sutures, involving the outer coats only.

As showing the results of such an operation, the author

refers to the condition of the ureter two and a half months after a similar operation pera half months after a similar operation per-formed by Dr Bloodgood (Fig 45) In this ureter invaginited into the case the tumour was not lessened at the point of anastomosis, there was no dilatation place above the anastomosis, and no affection of the kidney on that side



lower, traction sutures SS, tied, lateral fixation sutures in



Fig. 45 - Longitudinal section of anastomosed ureter of a ful cases of ureterodog showing new lumen and diverticulum

Mr E Cotterell 4 at a meeting of the Royal Medical and Chnungical Society related two successlithotomy In the

first case the calculus was found impacted just below the brim of the pelvis, in the second, the patient, a woman, had symptoms of stone in the bladder Exploration per urethram detected two calculi lodged in the lower end of the right ureter, not projecting into They were removed by incising the uietei through the vault of the vagina.

In a paper on impacted stone in the unctor Di Cotteiell<sup>5</sup> says suppression of unine after impacted calculus can only supervone from two causes (1,) Impaction of a stone in one uneter, with atrophy of the other kidney, (2,) When there is only one kidney present

In ordinary renal color the passage of the stone may be frequently mapped out by the subjective symptoms, but when the stone is impacted the pain radiates from one spot, which, in the intervals between the attacks of pain is tender to palpation. If a patient has symptoms of stone in the kidney, and a very careful exploration fails to reveal the calculus, the upper part of the ureter should be explored, the nephrotomy wound being somewhat enlarged, it necessary, for this purpose If not found, a soft bougie might be passed down the tube and an endeavour made to locate the calculus

When a stone is impacted in the lower part of the uneter in the male, the author advises a perineal operation in preference to Kraske's method, and draws attention to the fact that if the calculus be firmly squeezed between the thumb and forefinger, a very small longitudinal incision is sufficient for its removal, which afterwards contracts so much that suture is not required. He recommends early operation in cases of suppression of unine in patients with a calculous diathesis, and also in cases of renal colic when there is no evidence that the stone has passed into the bladder

Di Abbe, while attempting to remove a foul vesical pouch by the Kiaske operation, accidentally tore the uncter which lay in the walls of the pouch. The end of the uncter was then inserted into the pouch and the original operation abandoned. Improvement both locally and generally has resulted.

Mi Heibeit W Page records a case of impline of the meter in which it became necessary to remove the kidney on the affected side. The patient, a boy, about five years, was run over by a cart, at the time there was no evidence of serious injury. During the next two days blood was noticed in the urine, and patient was feverish at night

There was now some tenderness in the right iliac fossa, and a suspicion of swelling. Symptoms disappeared after clearing the bowels, and for eighteen days he was apparently well. Patient now became feverish again, with abdominal tenderness and swelling, and dulness on percussion in the right iliac fossa. Thirty-three days after the accident, laparotomy was done, a large post-peritoneal cyst was evacuated of 40 oz of altered urine, and a drainage tube inserted. The wound continued aseptic and dry for four days, when the dressings were found to be soaked with urine, with the result that the wound

rapidly became septic and discharged purulent urine freely. A month after the first operation the right kidney was removed and found to be in a state of advanced pyelonephritis Recovery was slow, but the child was ultimately discharged from hospital quite well, nearly five months after the nephrectomy

Mi Page refers to five cases of ruptured ureter examined and proved post mortem, and to four cases diagnosed during life and treated successfully. He lays stress on the fact that rupture of the ureter, unlike rupture of the bladder, gives use to no immediate symptoms leading to a suspicion of injury to part of the urinary apparatus.

Dramage through the loin is advised in the hope that should the rupture be incomplete, the aperture may close, should this fail nephrectomy may be considered Were the ends of the divided tube evident anastomosis by suture would be indicated, it is, however, extremely difficult to find the lax tube in the living subject.

Chaput's reports two cases of mosculation of the ureters with the intestine The first operation was for the relief of a uretero-vaginal fistula, and was completely successful, the second was performed for tubercular cystitis The inosculation of one ureter with the colon was successful, but three months later when the other ureter was operated upon death followed from suppression of urine latter case the tubes were greatly thickened and diseased.

His method is as follows. Having opened the abdomen by a curved incision in the iliac region and holding the intestines aside,

the posterior layer of the peritoneum is divided for about 10 centimètres in a line parallel with the meso-colon The peritoneum is reflected towards the vertebral column and the ureter sought for The ureter is divided between clamps The end of the ienal portion is now brought to meet the colon at its posterioi and lateral aspect at a very acute angle A row of sutures the two structures along the posterior of the uniting interesting the two structures along the posterior of the uniting interesting the mucous layer  $F_{2g}$  46—Suture of the mucous layer of the uniting time serious layers of



The intestine is then incised and a row of semicu cumference sutures uniting the mucous layers of the posterior part passed (Fig 46)

The anterior lips are then brought into apposition by two similar lines of sutures—the first in the mucous, the second in the serous layers Supplementary sutures are next passed at the extremities of the intestinal incision which gapes a little. The end of the uneter and the incision are finally buried at the bottom of a fold of the intestinal wall by means of two rows of sero-serous sutures (Figs 47 and 48)

The author recommends this operation (1,) For maccessible meterovaginal fistula, (2,) When the meter is wounded high up, (3,) After removal of calculus, if the meteral wall is in such a condition that it cannot be united, (4,) In certain cases of cancer and tubercle of the bladder, (5,) In extroversion of the bladder.



Fig 47—Point of anastomosis buried by infolding the intestinal sero-sic



Fig 48—Transverse section of would at the point of anastomosis, showing the infolded ureter

The author concludes -

- (1,) The operation is an easy and favourable one and does not necessarily lead to hydronephiosis due to contraction of the uneteral orifice, nor to pyelo-nephritis due to ascending infection.
  - (2,) The bilateral operation can certainly be performed on man
- (3,) The passage of unne into the colon does not cause special inconvenience, and neither impairs digestion nor irritates the mucosa, the stools are somewhat more frequent, but not more so than normal micturition
- (4,) The operation is valuable where more simple methods are mapplicable.

The operation should not be one of choice, but of necessity

Adolfo Schwarz, has succeeded in removing the bladder and grafting the ureters into the urethra of bitches with the result that though at first incontinence was absolute, in about a fortnight after operation the animals began to make efforts at micturition, and after a few months were almost entirely continent. The post mortem examination revealed the fact that a new organ had developed pos-

sessing all the characteristics of the original bladder, and capable of fulfilling all its functions. A sphincter is also provided to the new bladder as a result of a hyperplasia of the muscular fibres of the upper part of the urethra.

REFERENCES.—<sup>1</sup> "Annals of Surgery," Sept. 1894; <sup>2</sup> "New England Medical Monthly," Aug 1893; <sup>3</sup> "Annals of Surgery," Jan 1894; <sup>4</sup> "Brit Med Journ," May 12, 1894, <sup>5</sup> "Lancet," June 30, 1894, <sup>6</sup> "Annals of Surgery," Aug 1894, <sup>7</sup> Ibid, May, 1894; <sup>8</sup> "Archives Générales de Médicine," Jan 1894, <sup>9</sup> "Rif. Med," July 3, 4, 5, 1894

E Hurry Fenwick, F.R.C S.

Occlusion of the Ureters.—Robinson from a sense of experiments on dogs concludes —

- (1,) Complete occlusion of the ureter produces atrophy of the kidney, and partial occlusion, and hydronephrosis.
- (2,) After weeks of complete occlusion the kidney will resume its function.
- (3,) The kidney secretes until the pressure of the urine is higher than blood pressure.
- (4,) Ligature of one ureter does not cause suppression on the other kidney
- (5,) Man has double the amount of kidney required for ordinary use, but when an emergency arises he needs both kidneys, and a man with one kidney is apt to die of pneumonia or other acute disease.

Suture of Divided Ureter.—Cushing² (Boston) cut and ligated the left ureter in mistake for a large blood vessel during hysterectomy for large myofibroma of the uterus. The mistake was discovered, the ligature removed, and the two ends sewed together again with silk and catgut sutures. The reunited ureter was dropped back into the pelvis, and an iodoform gauze drain was packed above the site of the suture and brought out through the abdominal wound, by the side of a glass drainage tube, which was also inserted to the bottom of Douglas' pouch. The patient did well, but urine commenced to escape along the gauze, and a fistula subsequently formed, which closed after nine months

Implantation of Cut Ureter into Bladder after Abdominal Hysterectomy and Section of Ureter—Dr Chailes Penrose<sup>3</sup> reports a case in which he excised one inch of the left ureter in performing abdominal hysterectomy for carcinoma of the uterus—He implanted the proximal end of the ureter into the body of the bladder, and stitched the peri-

toneum over the line of union. The patient made an unusually easy recovery, leaving the hospital twenty days after the operation.

Unetona' Calluli — Mr Whitehead exhibited eleven calculi which he had removed from the lower end of the uneter of a female after dilating the unethra and the orifice of the ureter. Frequency of micturition was the only subjective symptom, but the presence of a comet-shaped tumour in the region of the bladder could be easily detected per vaginum.

Obstructive Anura.—Wheelton Hind<sup>5</sup> adds a remarkable case to the rapidly increasing literature of operative attack for anura dependent on impacted calculus in the ureter

A gentleman, aged fifty, who had never had symptoms pointing to renal calculus, but who had been under observation for chronic theumatic arthritis and acute gout, suddenly became unwell, with vague back ache and a feeling of malaise He passed a smooth facetted unc acid calculus the same evening, and immediately suppression ensued Di Hind diagnosed blockage of one uneter and incapacity of the other kidney Beyond a questionable uncasiness of the right side there was no guide as to which side was blocked last On right-sided nephrotomy being performed Dr Hind felt, impacted at the top of the ureter, a small bean-sized stone, which he removed. and subsequently cleared the pelvis of nine other facetted stones Uninc excretion was at once re-established, but forty-eight hours after the patient began to fail from cardiac weakness. On post mortem the incision into the right kidney was healing and the left was a mere shell. enclosing 360 giains of calculous material. At no time had his urine given evidence of blood—though it had been loaded with uric acid crystals, and contained a trace of albumen

Mi Vernon<sup>6</sup> details a case of complete suppression in a man aged sixty-thiee, who had had a sinus in the left loin lunning towards the vertebræ—not connected it was believed with the kidney. For two days he had been suffering from high temperature—sweating freely—and very severe general acute pains in the head and body, especially in the abdomen. All these symptoms had come on suddenly. The urine was scanty, high coloured, and contained albumen and pus. He was treated with calomel and dirretics. The third day he seemed better, but could pass no urine.

Six days after onset of illness, and on the third day of the suppression, the right kidney was opened. Its substance proved very rotten, and a large quantity of foul urine and pus escaped, a probe was passed in about ten inches, but no calculus was found. From the operation he rallied well, considering his weak and unamic condition.

but died a week after from unemia and exhaustion. The right kidney was acutely inflamed, three large acute abscesses being found in its upper portion. The pelvis and uneter were also acutely inflamed, and about half way down the right uncter a small phosphatic calculus was found. There was hardly any remnants of the left kidney; it contained no calculus, and under the microscope its atrophied tubes were completely blocked up with debris.

REFFRENCIS—"Annals of Surg," vol. xviii, Oct. 4, 1893, "Annals of Gynce, Dcc, 1893, "Annals of Surg," vol. xix, p. 695, "But Med Jouin," p. 68, part 1, 1894, "Ibid, p. 960, part 1, May 5, 1894, "Ibid, p. 1,304, June 16, 1894.

## URETHRA (Caruncle of).

Leill treats urethial caruncles by the use of **Torsion** or **Excision** The former operation presents the advantage of giving rise to a slight harmorrhage, the latter operation gives most assurance against a recurrence, and harmorrhage is easily checked by a temporary tamponing of the urethial canal with a conical plug of styptic cotton

REILRENCE - "Therap Gaz," June, 1894

# URETHRA (Stricture of). E Harry Fenwick, FR.C.S

Scudder reports twenty-eight cases of stricture and retention. which only admitted a fine guide, in which divulsion was practised He states the mortality was about 19 per cent. He mentions that the operation is regarded by those familiar with it as accurate, easy, safe, and almost bloodless. In firm," tough strictures divulsion is contraindicated Those soft strictures, firm enough to cause retention of urine and which yield to very little force, are most suitable for divulsion In the dense hard strictures of the anterior penile urethia, internal methiotomy is the better operation. Mr Fenwick has now notes of over a thousand cases of tight stricture of the urethra treated by all methods He is convinced that many of the cases called "soft yielding strictures" are merely thin valves. These can be blown out flat with the inflating urethioscope, and a touch against their edge with a fine knife is sufficient to cause the restoration of the patency of 2 per cent is the mortality of internal urethrotomy, and this latter procedure is a much more certain and surgical method than divulsion, which in Scudder's hand has a mortality of 19 per cent The amount of damage done by a divulsor cannot be estimated until months after the operation, when re-contraction has taken place in the multiple radiating traumatisms produced by the divulsion

Photography of the Living Unethra.—Dr Kollmann<sup>2</sup>, of Leipsic, has modified Oberlender's unethroscope so as to enable it to carry a small

camera, by means of which he has obtained some very strikingly clear photograms of the mucous membrane of the healthy and diseased urethra. These photograms are necessarily very minute in size, and for practical purposes they have to be enlarged

The illustrations which are appended (Figs. 49-52), of granular









F18 49

Fig 50 Fig 51 Photographs of living urethra

Fig 52

urethræ, are introduced to demonstrate the feasibility of photography of the living urethra, rather than to illustrate its use as a practical clinical record. Dr. Kollmann's camera demands an exposure of three-quarters of a minute to a minute

REFERENCES.—" "Journ of Cut and Gen Urin Dis" Oct., 1893, "Kollman, "Internat. Centralblatt fur Harn und Sexual Organe," Bd 11, 227,

### URTICARIA.

## T Colcott Fox, M B

In urticaria papulosa (lichen urticatus), F H Baiendt noted that the distribution of the rash was commensurate with the skin area over which the child could wield his finger nails most leadily, and in the majority of cases most effectually He concludes from this that the lichen ulticatus is the product of the patient's nails. The exiting causes are fleas and bugs acting on a system predisposed to the eruption by the warm season, by various exanthemata, or a nervous excitable disposition. The practical point in this view is to insist on the thoroughness of local treatment—

- (1,) Dust insecticide powder between the sheets and blankets and over the child's body
- (2,) Pare the child's nails and pievent access to the skin by a suitable night dress closed below with a lunning stitch and fastened behind. The hands sewn up.
- (3,) Whole integument except face and scalp anointed at night with a mild antiseptic ointment, eg, acidi carbolici i per cent, or naphthol 2 per cent. in benzoated lard, and a warm bath given the following morning followed by a free dusting with equal parts of finely powdered oxide of zinc, venetian talc and rice starch.

(4,) Internal treatment is only given as occasion may suggest

Hartzell successfully treated a case in a girl of six years by exhibiting internally Salol in 3-grain doses thrice daily and by applying a Thymol Lotion (½ giain to 3j of water) for relief of prunitus followed by the use daily of an ointment of xv grains of Creolin in 3ss each of Lanolin and Petrolatum.

In an article in the "Jouin de Méd. de Paris," April 22, 1894, the following indications for the treatment of urticaria are given. Firstly, the cause is to be removed, and, secondly, the symptoms relieved —

- (1,) It must be remembered that a large number of vegetable substances, food, and parasites, may occasion the disorder.
- (2,) Those who consider the unticana the result of a diathetic disorder of vaso motor innervation will give Quinine Disulphate, grains in twice daily, o Ergotine, grains in night and morning, or Tincture of Beiladonna, git is to in each day, or Atropine Sulphate, gr.  $_{150}^{5}$  twice daily Brocq combines these in the following pill.—
  - R Hydrochlorate of Quinine gr. j | Ext of Belladonna gr ss Ergotine gr. j | Glycerine qs. ft pil Two pills for a dose

If an arthritic diathesis exists Alkalies or Bicarbonate of Soda or Vichy Water are called for, or mild purgative alkaline waters.

- (3,) If the digestion is at fault a strict regimen is necessary, and the following prescriptions are recommended.—
  - B. Benzo-naphthol Powdered Rhubarb Calcined Magnesia āā gr v

    To be given in a cachet half a hour before a meal.
  - B. Beta-Naphthol Salicylate of Bismuth Prepared Chalk āā gr. v

    To be given after each meal if diarrhea be present.
- (4,) Where great nervous irritation exists **Hypnotics** may be
- (4,) Where great nervous irritation exists **Hypnotics** may be administered
  - (5,) As local applications the following are useful —

Bath—I little of vinegar and I of glycerine, with 2 drachms of corrosive sublimate added to the bath, given in a porcelain or wooden tub

Lotions —  $\frac{1}{3}$  ether,  $\frac{1}{3}$  vinegar,  $\frac{1}{3}$  cologne water; corrosive sublimate and chloride of ammonium, of each 2 grains, cherry-laurel water  $2\frac{1}{2}$  diachins, distilled water to 8 ounces

Powders—Starch, oxide of zinc, salicylate of bismuth, with the addition of  $^1_{50}$  part of camphor. To be applied after the bath.

Salves.—Menthol or phenol in zinc cintment.

REFERENCE - "Liverpool Med Chir Jouin," Jan 1894

Synofsis — (Vol 1894, p 564) High doses of Strychnine, 5 to 6 milligrammes daily for fitteen to eighteen days Lotions of Aromatic Vinegar with 3% Phenic Acid or Vinaigre de Pennes diluted with 1, 2 or 3 parts water Powder skin with Talc containing 1% Salicylic Acid Application of Oil of Sweet Almonds with 5 to 10% Menthol or Alcoholic Menthol Solution Galvanic Current and internal administration of Strychnine in neurotics. Pilocarpine may succeed after all else fails

### UTERINE THERAPEUTICS.

Polacco reports enthusiastically on the use of **Ichthyol** in gynecology. The cases included eczema of the vulva, prinitus, vaginitis, vaginal cicatrices, erosions of the ceivix, ectropion, hypertrophy of ceivix, multiple lacerations of ceivix, deep lacerations of ceivix, ceivical endometritis, subinvolutions, and indeed all the known gynecological affections.

Eczema and pruntus were cured almost at once. In vaginitis the results were most prompt and gratifying, the ichthyol being applied on tampons in antiseptic glycerine solutions. For endometritis ichthyol is used in 10 to 20 pc; cent solution, and not only cures for the time but prevents a return of the trouble. The drug was tried in some cases of metritis and parametritis, not more than 11½ grains were rubbed into the skin by means of a 10 per cent outment, and it was also applied to the vagina by means of tampons impregnated with the glycerine solution. After three or four days of this treatment, combined with rest in bed and the mild use of saline purgatives, convalescence set in promptly

The drug is absorbed, is comparatively cheap, since it is reed in to per cent or at most 20 per cent solution, does not permanent's stain the clothing, has an ordon which is easily disguised by volatile oils, and, unless used in conjunction with landline, never initiates the skin Polacco concludes with the statement that ichthvol is the most potent analysesic known and adopted in gynæcological therapeutics of the day. It has a decided absorptive action upon evulations, manifested more rapidly when used in the early stage of the disease

Albertoletti in the main agrees with the report just quoted, with the exception that he holds that ichthyol does not cause the absorption of exudation

The expensence of others, however, seems hardly to justify this eulogum - Lp

Calombian states that cotton soaked in 5 or 10 per cent of the Sulph-ieht. A plate of Ammonia in glycerine causes speedy disappearance of the vulvitis with painful crossons. In vaginitis, tampons impregnated with this solution are equally efficient. In urefligits a

5 to 10 per cent. solution of ichthyol in water, when injected, caused prompt subsidence of symptoms. Cervical endometritis, with ulcers, was quickly cured in from six to eight treatments with tampons soaked in 10 per cent ichthyolate in glycerine, while the same solution, carried in by means of gauze, wrapped round the body of a Playfair sound, cured endometritis of the body of the uterus. Where the cervix was insufficiently dilated to allow of this procedure, intrauterine injections were made by means of a Bozeman recurrent catheter.

REFERENCE.—" "Therap. Gaz, June, 1894.

Symptots — (Vol 1894, p 565) Ichthyol externally and internally reduces congestion and pruritus 5% solution Sulphichthyolate of Ammonia in Glycerine applied to vagina on tampons and ointment of Ichthyol and Lanolin rubbed into abdomen Capsules, containing 15 millimetres, three times daily, and suppositories containing from 1 to 3 M Thiol has no odour, smarts less than ichthyol and does not stain linen, 10 to 20% may be applied to cervical canal on tampons, and as ointment for inunction over abdomen Potassium Permanganate as emmenagogue, ½ to 2 grs three or four times daily, well diluted Atthill injects Iodised Phenol after curettage, and often instead of the operation

UTERUS AND VAGINA (Doubling of). John III Taylor, FRCS On Doubling of the Uterus and Vagina and allied Maltormations—
There can be no doubt that the malformations which may be included under this title (and in a certain proportion of these, the diseases necessarily consequent on malformation) are much less rare than was formerly supposed. Scarcely a month passes without some fresh report of a case in current medical literature, and I have myself met with eight examples. Some of these cases are of great clinical interest, and the questions involved in their diagnosis and treatment, the difficulties which they present both for patient and surgeon, are of such grave moment that a clearer and wider knowledge of the subject (if attainable) is really of high importance

The defects of present teaching are two-fold. First, the subject has been unnecessarily complicated by minute distinctions and Latin phraseology, which, however valuable from the standpoint of the index, is of no value whatever to the practical surgeon, secondly, a method of instruction has followed this which takes but little notice of the clinical aspect of the cases met with, but confines itself to the pathological anatomy as ascertained by post mortem examination, when all the salient features of the (living) case have been obliterated. To make my contention planner I have transcribed from one of our best text books (Winckel's "Gynacology") eighteen varieties of malformation affecting the uterus only, each of these being due to a complete or incomplete development of a double uterus.

#### TABLE

- I -- Uterus unicornis sive ullo rudimento cornu alterius
- 2 Uterus unicornis excavatus cum rudimento cornu alterius solido
- 3 —Uterus unicornis excavatus cum rudimento cornu alterius excavato
- 4 —Uterus didelphys
- 5 —Uterus bifidus
- 6 —Uterus didelphys partim excavatus
- 7 Uterus bicornis partim excavatus
- 8 Uterus bicornis septus
- q Uterus bicoinis subseptus
- 10 —Uterus introrsum arcuatus
- II Uterus introrsum arcuatus septus
- 12 —Uterus introrsum arcuatus subseptus.
- 13 -Uterus planifundalis
- 14 -Uterus planifundalis septus
- 15 —Uterus planıfuudalıs subseptus
- 16 —Uterus foras arcuatus septus
- 17.—Uterus foras arcuatus subseptus
- 18 Uterus inequalis eximpedita evolutione unius lateris.

If to these were added the associated or non-associated malformations due to complete or partial doubling of the vagina the list might be extended much further. Such lists are only examination bugbears, and those who learn purposely forget them as soon as all immediate occasion for their remembrance has passed by. With this natural neglect too often the whole subject is lost sight of, and when a case presents itself the condition is unsuspected.

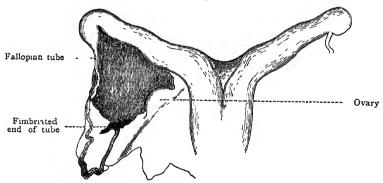


Fig 53 - Double Uterus of Sheep

Now, if a sure foundation of study has been laid by clear and definite outline-knowledge of the development, and comparative anatomy of the uterus, of its earliest double condition as separate Muller's ducts, and of its persistent double condition in most of the lower animals (as shown for example in Fig 53), it will be only natural to

proceed from this to the consideration of those cases in which the double organ is not a passing phase of fœtal development, but a permanent condition of adult life, and by grouping these eighteen and more varieties under one heading—that of "double uterus and vagina"—we begin to make a somewhat chaotic mass of information intelligible and of some practical interest. The various malformations of this type assume a wider aspect. They form a connected series or group with special points of common interest.

Under this heading it is quite possible that any practitioner may meet with one of more cases in his practice. In the title or name itself, double uterus and vagina, he has a sure guide to interpret most of the difficulties that such cases present, and it conveys moreover a settled idea of the common origin and true association of these deformities which may be altogether wanting when cases are studied singly

The idea is of course not an original one "Veidoppellung des Genital-Kanals" is a term of frequent use in iccent Geiman literature, and in at least one of the newer German text books (Duhissen), it forms the distinctive heading of the section devoted to these malformations. The advantage of treating the subject in this way is so evident that the example may, I am sure, be profitably followed in England.

The clinical aspect of this subject—its bearing on disease—may be considered from either a gynæcological or an obstetiic standpoint

From the former, one may trace the vaginal septum as an occasional obstacle or difficulty in married life. When operation is called for on account of this, there can be no doubt that thorough removal of the septum to a convenient height by division of both anterior and posterior attachments, with careful suture of the the wounds, will yield the best results. I know of one case in which the septum was simply divided along the anterior attachment, leaving an awkward tag of tissue hanging from the posterior vaginal wall

Again, one-sided development of the uterus with absence of the uterus on the other side—a condition sometimes found when the vagina itself is absent or rudimentary—may, with its accompanying distended Fallopian tube, cause a tumour confined to one side of the abdomen, which is very likely to be mistaken for a small ovarian cyst. Especially is this the case when the vagina is wanting Examination in the middle line, between the bladder and rectum, may reveal no trace of any intervening organ because the uterus is one-sided, and the latter may easily be considered as absent altogether. Such a condition when associated with menstrual retention (as in a case

which I reported last year) will of course need abdominal section for its cure

Perhaps the most important disease arising from this type of malformation is the large retention tumour, formed by the collection of menstrual fluid or pus in one-half of the double uterus (or uterus and vagina) when the channel below is incomplete.

An excellent illustration of this condition—which I have taken the liberty of copying from Duhrssen's little manual—is shown in the accompanying figure (Fig. 54), and exactly portrays the leading features

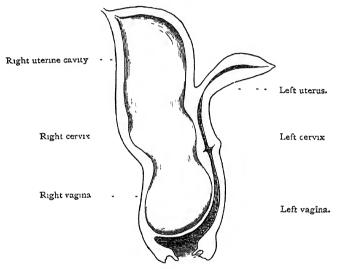


Fig 54 —Double Uterus Retention Tumour formed by collection of blood in the right uterus and vagina

of one of my own cases I need not tarry to point out the gravity of such a case and the urgent necessity for correct diagnosis and treatment

The diagnosis is often a difficult one, and suspicion of the true condition is not entertained because mensituation is occurring regularly from the open half-uterus or womb of the other side. The treatment is usually simple, free opening is made into the closed vagina, and the retained fluid is evacuated.

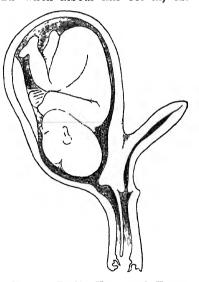
But if the reports of published cases are carefully followed it will be found that in many (if not in most) cases a mistake is made in doing this, which may be easily avoided if definite teaching be given. The

opening must be a permanent one, and this is only to be obtained by sewing the mucous membrane of the closed vagina to the mucous membrane of the open side all round the incision

From the obstetric standpoint the subject is scarcely less important As is well known, a double uterus appears to be no bar to pregnancy, and I am inclined to think that the generally accepted belief that menstruation may sometimes continue throughout pregnancy is solely due to the occasional occurrence of pregnancy in one-half of a double uterus

Associated with early pregnancy of one side, the irregularity of the resulting tumour is sometimes a cause of anxiety and doubt later stages of such pregnancy, and when labour has set in, the

difficulties which may arise, although not usually attended with danger to the patient, may be very distressing to the practitioner, especially when he has no previous knowledge of the patient, and makes his flist examination to decide the question of a normal presentation case I have myself described in which the feetus occupied the right utcius and vagina (Fig. 55) The patient lying in the usual obstetric position on her left side was examined by the practitioner, whose finger naturally passed into the left vagina palpable presence of a child within the abdomen yet outside the examined uterus, which was not even dilated, was at first sugnot even dilated, was at first sug-  $F_{IG}$  55 — Double Uterus and Vagina gestive of extra-uterine piegnancy Piegnancy in right uterus (diagrammatic)



Happily the condition was finally made out But it might easily happen that the surgeon in such circumstances, in perfect good faith and with all due gravity, might propose and make ready for an urgent and dangerous operation while the infant was being born naturally under the care of the nuise. The disagreeableness of such a possible error is obvious to everyone

Now if such practical difficulties may be met with, by one surgeon, and I only speak of what I have myself witnessed, it seems to me that the whole subject of doubling of the uterus and vagina is worthy of more attention, of better teaching, and of more careful remembrance than is usually accorded to it.

I believe the study of such malformations may be simplified and made both interesting and practical by a more comprehensive method. If the student remembers only the title of this paper as inclusive of various allied deformities, and with that possesses a mental picture of such illustrations as those which I bring before his notice, he will, I think, be better equipped for the practical recognition and treatment of a case than he is under present methods of teaching by divided cases and single pathological curiosities.

#### VAGINITIS.

Synopsis — (Vol 1894, p 573) B. Glycerine, Tar Water, āā, Jijss, Zinc Sulphate, gr xij, Copper Sulphate, gr iij, Alum, gr vj, Soda Chlorate, gr iv, Essence of Wintergreen, gtt. xx. As injection, Pure Petroleum injections 100 to 150 grms daily.

#### VAGINODYNIA.

Synopsis — (Vol 1894, p 576) Between attacks Belladonna, Viburnum, Valerian, and Conium, Morphine being the most efficient

### VARICOCELE.

Sebileau, after giving the ordinarily accepted indications for operation in case of varicocele, remarks that the same method of treatment is not suitable for all cases. When the varicocele is small, the dilated veins being of normal consistence and regularly distended. simple Resection of the sciotum is followed by the best results. although in combination with this there should also be resection of the lower segment of the posterior group of veins. When, however, the enlarged veins are of great size, extend the whole length of the cord. and are partially dilated, indurated, and knotted, a double operation is necessary, that is, not only is it essential to resect the scrotum and excise the posterior funicular group, but the anterior group must also be operated upon As palliative means in the non-operative cases, cold douches to the region of the scrotum and perineum are recom-For these douches, I per cent Tannin Solution is advised; mended wearing a suspensory bandage and careful attention to the condition of the bowels are also insisted upon as cardinal points of the scrotum is a safe operation, the author holds The parts are prepared as for ordinary surgical intervention The redundant tissue is pinched up, seized in a clamp, and cut off Only enough to cover the testicle is left. After resection the clamp should be removed, hæmorrhage checked, and the wound sewed without drainage.

Koehler' holds that the method of choice consists in exposing the veins by free incision, isolating them, and tying each one separately high up and low down, the poition between these ligatures being excised. This excision should be combined with an operation having for its end shortening of the scrotum. This end is easiest attained by tying together the ligated vein ends above and below, then the vertical skin wound is stretched laterally so that it becomes tranverse, and the wound is sewed in this position.

References — "" Gaz de Méd de Pans," Feb 24, 1894, 2" Berlin klin. Woch ," No 50, xxx , Jahr

Synopsis.—(Vol 1894, p 578) B. Tinct Hamam Virg, gtt xx, Aq Dest, 3vj, M. Tablespoonful doses, taking the whole within twenty-four hours

### YARIOLA.

Richardiére<sup>1</sup> has obtained satisfactory results from the use of Mercurial Baths and Inunctions The patients are bathed twice a day at regular intervals The bath must have an ordinary temperature. -that is, from 33° to 35° C, -and must be of a duration of fifteen Each bath must contain to grammes of Corrosive Sublimate dissolved in alcohol These baths are given twice a day up to the time when the body temperature has declined definitely, or just up to the end of the suppurative stage of the malady During the period of desiccation one bath every twenty-four hours is sufficient After the crusts begin to fall off, the mercurial is substituted by a simple bath containing some Boric Acid in solution The meicurial baths act upon the pustules of the trunk and extremities, but not upon The latter are best treated, according to the those of the face. author, by the following method The head and face of the patient are covered by muslin bandages that have been pieviously dipped in a solution of corrosive sublimate of the strength of 50 centigrammes to the litre A sort of helmet or casque is formed with this bandaging, leaving intact, of course, the natural openings, ie, the eyes, nose, and mouth The bandage is allowed to remain during the course of the disease, and after its first application is simply wetted several times a day with the mercurial solution, without removing it. This method is of great value and is well borne by the patients. The author affirms that cases of small-pox treated in this manner do not exhibit any of the forms of dermatitis or vesicular eluptions which often follow the local application of mercury In the cases reported a milk diet was strictly observed; ordinary diet was only allowed two or three days after the body temperature had assumed a normal character. No remedial agent was administered internally, and only in advinance cases was stimulation resorted to

Finsen<sup>2</sup> has made observations on the effect of light on the skin He referred to the good results obtained by Black and others by the exclusion of daylight in the treatment of small-pox, but argued that, as Widmark has shown that it is the ultra-violet rays which have the strong chemical action, it is not necessary to exclude the daylight, but by using red curtains tightly drawn, or red window panes, the injurious effects of the light can be prevented. The correctness of this hypothesis was proved by Svendsen, of Bergen, who last summer treated four cases of small-pox in unvaccinated patients by covering the windows with thick red woollen curtains. The patient escaped the suppurative stage; there was no rise of temperature, and no cedema. The patients passed from the vesicular stage, which was slightly prolonged, into convalescence, and escaped scarring.

REFERENCES .- "L'Union Médicale" 2" Therap Gaz," Maich, 1894

## YEINS (Yaricose).

Synopsis.—(Vol 1894, p. 578) Strapping, Massage, Subcutaneous Ligature and Excision

#### YERRUCA.

Synopsis—(Vol 1894, p 579) Curette, Fuming Nitric Acid, or Tine of Thuja Occidentalis locally applied, also B. Sublimed Sulphur, 5v, Pure Concentr Acetic Acid, 5ijss, Glycerin, 5ij Apply for several successive nights, covering warts with flannel smeared with soft soap Resorcin or Salicylic Acid, 10 to 20% dusting powder for exuberant vegetations Equal parts powdered Savin and Salicylic Acid or Powdered Savin and Alum applied twice or thrice daily, cleansing before the application with 1 in 1000 Corrosive Sublimate Solution B. Hydrarg Bichlor gr v, Ac Salicyl, 5j, Collodion, 5j One application daily until about four have been made Tincture of Iodine, internally, 10 drops twice a day for an adult Liq Arsenicalis, II to 3 Painting with pure Carbolic Acid every four or eight days for anal or vulvar warts

#### YERTIGO.

Synopsis — (Vol 1894, p 580) Potassium Iodide, 30 to 90 grains daily, long continued when due to aiterial fibrosis

# **YESICULITIS** (Seminal). E Hurry Fenanck, FRCS

Fuller contends that the seminal vesicles are not infrequently attacked by inflammation of an acute, subacute, and chronic grade Usually gonorrhœa is either the direct or the remote cause. Most of the cases dependent upon this cause are subacute or chronic, and come on some time after the acute stage. In a small number of cases masturbation, or sexual excess, or both combined, are the cause of a

simple vesiculitis. As regards the specific forms, tubercle, or, more rarely, malignant disease commencing in the epithelium lining the vesicles, may be the causes of the affection. During a period of one year and a half the author has had twenty cases under his observation In the simple variety of vesiculitis symptoms of disturbances of the sexual function are constant. In the majority there is a marked diminution of the sexual desire, or it may have disappeared In a small minority the desire is increased. In some, erections are almost absent, while in others they are persistent. The act of ejacuation is very precipitate, or it may be tardy and accompanied by much pain, and followed by pain in the perineal region Seminal emissions are also frequent. The amount of fluid ejected is small, and the spermatozoa are lifeless and reduced in numbers In the gonorrheal cases pus is present in considerable amount, more than in the simple cases not due to gonorrhœa Blood may be present in varying amount This may give rise to a greenish colouration owing to the oxidation of the hæmoglobin A considerable amount is characteristic of the very acute cases Functional derangements of micturition may or may not occur The patients are often very neurotic individuals. Sharp pain may occur in some during evacuation of the bowels. In acute cases the temperature is raised. When due to tubercle the disease often follows tuberculous involvement of the neck of the bladder or of the epididymis, and is then painful only when the vesicle becomes much distended In order to make sure of the diagnosis the seminal vesicles must be examined per rectum when the bladder is full, one finger being intioduced through the anus while with the other hand pressure is applied to the hypogastric region. By this means the lower half of the vesicle can be felt. If diseased it will be distended and tender to the touch, especially in the acute cases By pressing on the vesicle and drawing the finger along it some of its contents can be pushed into the urethra, and on urination they can be collected and examined

TREATMENT —In treating these cases the author recommends in the simple ones, if acute, palliative measures, such as rest in bed, opiates, and large hot poultices to the inguinal region of the side with the involved vesicle. In rare cases perineal incision or aspiration may be requisite. The testicles should be supported and the treatment for gonorrhæa carried out. No injections must be used. In chronic cases, in addition to general treatment by tonics, etc., digital pressure along the affected vesicle should be carried out about once a week, or not oftener than every fourth day. Care must be taken to prevent hæmorrhage into the vesicular sac or the setting up of acute

inflammation by not applying pressure too vigorously or too often In numerous cases these measures will effect a cure intercourse should be prolabited during active treatment culous cases, when the general condition allows it, complete extirpation must be practised. The same treatment is adopted in malignant cases when diagnosed sufficiently early.

REFERENCES - "Jouin of Cutan and Gen Urin Dis.," Sept, 1893, Epitome, "But Med Jouin," Oct 23, 1893

#### VOICE.

Synapsis — (Vol 1894, p 581) Hot Water Drinking before each meal, Carlsbad Sprudel Salt, avoidance of irritating foods and drinks—ice water, alcohol, and tobacco Sleep and exercise in sufficiency, avoidance of close 100ms and narcotics Nasal Douche of Warm Water with of close 100ms and narcotics Nasal Douche of Warm Water with Lime Water and Peroxide of Hydrogen Cleaning teeth and using an antiseptic gargle after every meal The foregoing hints are for singers, etc

## YOMITING. (See also "Hæmatemesis")

Humphiles employed Nitro-glycerine systematically for three years in all forms of vomiting, with highly satisfactory results In cases of gastiic cataith in the adult or in the infant, acute or chronic. dependent upon alcoholism or upon anæmia, it acted almost as a specific, it also proved useful during pregnancy. In peritonitis alone it increased the yomiting, but the effect soon passed off. It proved of little value in the relief of the vomiting of pulmonary tuberculosis

REFERENCE - "Butish Medical Journal."

Synopsis — (Vol 1894, p 581) Strontium Bromide, 30 grs daily, for vomiting of pregnancy, hysteria, acute gastric catarrh, etc. Nitroglycerine almost specific for vomiting of gastric catarrh, pregnancy, and some cerebral cases, but aggravates in peritonitis, and in phthisis and influenza it seems inferior to Atropine

## YULYO-YAGINITIS (in Children).

Rocaz calls attention to several direct consequences of this condition, such as ulceration of the labia, purulent conjunctivitis and otitis, and joint affections. The general health may be seriously Peritonitis may result through extension of the inflammation, several cases having been reported in infants bable that the endometrium is liable to become infected in girls at puberty, from a latent vaginitis of long standing In regard to the local treatment the writer calls attention to the fact that the ordinary applications, astringents, antiseptics, etc., relieve but do not cure the affection, since they do not reach the seat of the trouble within the Medicated crayons containing, iodoform, salol, thallin, etc., are not only painful to the little patient, but may cause added irritation.

He employs vaginal injections of Permanganate of Potassium, beginning with a solution having a strength of I in 4000, and increasing it up to I in 1000. The child is placed on her back across a bed and a subber male catheter is introduced into the vagina, through which is injected a pint of the solution. The operation is not painful and is well borne by the patient. A slight increase in the discharge will be noted at first, but it soon begins to diminish and disappears entirely within from two to four weeks, during which time the injections are repeated thrice a week. Several successful cases are reported.

RLFERENCE — "American Journ of Med Sci"

#### WARTS.

For the removal of warts D1 Mouson perscribes the following .-

He sometimes increases the bichloride of mercury to 30 grains in the same amount of collodion, if the milder application does not answer. It is applied every day once, the upper crust of the previous application being removed before a fresh one is made Four such applications generally soften the wait to such a degree that gentle traction removes it painlessly, the further dressing being any simple outment

REFERENCE - "Med Record," Mar 7, 1893

## WEIL'S DISEASE.

Freyham discusses this subject after relating the following typical case A man, aged thirty-two, was suddenly seized with shivering, fever, headache, followed by semi-coma On the next day jaundice was noticed On admission the tongue was div and coated, the temperature 38 9° C, and the pulse 100 The urme was dark in colour, contained bile pigment and a trace of albumen, some hyaline casts, and a few red and white cells The liver and spleen were both enlarged The stools were loose and passed unconsciously. The fever terminated by lysis in a few days, the other symptoms disappearing at the same time Severe pains in the calves were noted, especially at this time Men, says the author, are more often attacked than Sometimes relapses occui, the former symptoms reappearing, but rarely in such a severe form. The pulse rate is usually high, but during convalescence it is infrequent, probably owing to the presence of bile constituents in the blood Severe cerebial symptoms are rarely absent. Jaundice is the most constant symptom. The hepatic enlargement is not always present, the spleen being more often affected The nephritis is to be looked upon as toxic in nature as in

Muscular pains, supposed to be due the other infective processes to a myositis, are almost always present. The prognosis is good. Neither morbid anatomy nor bacteriology has as yet given definite information as to the exact nature of the disease. It may be difficult to distinguish it from enteric fever in the first few days, and it has been looked upon as abortive enteric fever with jaundice, but the typical lesions of this latter disease have never been found resemblance to acute yellow atrophy is quite superficial, and it differs from septicæmia in several ways From infective jaundice the difficulties of diagnosis may be great. The author then refers to the infective theory of simple jaundice with special reference to epidemics, but he does not believe that a single cause can account for all such Those believing exclusively in the infective origin of jaundice look upon Wiel's disease as only a severe form of this affection clinical picture of catarrhal jaundice, even when accompanied by fever. is very different from that of Weil's disease The relation of Weil's disease to typhus biliosus, endemic in Egypt, is then discussed Some have looked upon it as the sporadic form of this disease. Only the discovery of the specific agent will settle the question.

REFERENCE - "But Med Journ.," Epit, February 24, 1894.

#### WHITLOW.

Sunopsis.—(Vol 1894, p 581) Poultice of Bread Crumbs and Lead Water

# WHOOPING COUGH. J Madison Taylor, MD, Philadelphia.

Di P Baion' warmly commends the use of **Quinine**, and especially if acute lung affections complicate the case. He thinks it should be determined whether it could be used as a prophylactic. The single dose is  $\frac{1}{6}$  grain of the hydrochlorate for each month, and  $\frac{1}{2}$  grains for each year of the child's age, given three times a day, preferably at 6 am, and at 2 and 10 pm. Strong children require a larger dose, but a larger dose than  $\frac{6}{2}$  grains to children over four years is generally not required

For whooping-cough in an infant<sup>2</sup> -

B. Sulphonal gr j Syrupi Tolutani Creasoti Mij Aquæ ää

 $\bar{5}^{1}J$ 

Misce et fiat mistura 2 teaspoonfuls to be given every two hours.

A bromoform mixture for whooping-cough3 -

B. Bromoformi mxvj Glycerini 5xij Spiritus Rectificati 5ij Tinct Cardamomi Comp 5ij

Mix in the order given A teaspoonful to be taken every six hours

Bromoform may cause toxic symptoms unless care be observed in its administration. The last dose in the bottle may, owing to the weight and insolubility of the drug, contain an excess, no matter in what way it may be suspended. This last dose, therefore, should be thrown away, or the drug supplied in a pure form, the nurse being instructed to supply each dose separately.

Nitrite of amyls is suggested to relieve paroxysms of whooping cough

A dose is a teaspoonful for a child of ten years, and it is claimed that if given immediately before a paroxysm it will greatly assist in relieving it

References — "Berlinei klinische Wochen, 'No 48, - "Therap Gaz"; 3" Practitioner, "4" Brit Med Journ, Jan 6, 1894, 5" Med Age," Oct 2, 1894.

#### WORMS

Synopsis — (Vol 1894, p 581) In thread worms keep up aperient action for some weeks by Castor Oil, Rhubarb, Sulphate of Magnesia, etc Irrigating by Hegar's apparatus in obstinate cases, using pure water Soap Enemata Tonics, Iton, with Nux Vomica or Strychnine, boiling of milk and drinking water, cleaning of all articles of diet and thorough cooking of meat White sugar in preference to brown Nails to be kept short and often brushed Frequent washing of the body with carbolic acid soap

# XANTHOMA. T Colcott Fox, MB

For presented to the New York Dermatological Society two patients in whom he had cured patches of vanthoma palpebraium by **Electrolysis**, using a strength of r to 3 milliampères for the duration of one minute. Elliot also spoke of two successes by this method. There is no mention of the extent of any consequent scarring

Besnier, in the course of a discussion, stated that he had observed the disappearance of a generalized eruption of xanthoma in two cases during the administration of **Phosphorus**.

#### YELLOW FEYER.

Saliciup believes that when called to a case of yellow fever in the first day of the disease, 10 to 15 grains of Calomel, followed by a saline cathartic three hours afterwards, should be prescribed, and as soon as the cathartic effect begins the patient should take a cupful of hot lemonade, with 5 to 10 grains of Bitartrate of Potassium every hour until abundant perspiration is produced, this is to be kept up by the constant use of lemonade and confinement to bed for two or three days, at the end

Muscular pains, supposed to be due the other infective processes to a myositis, are almost always present. The prognosis is good. Neither morbid anatomy nor bacteriology has as yet given definite information as to the exact nature of the disease. It may be difficult to distinguish it from enteric fever in the first few days, and it has been looked upon as abortive enteric fever with jaundice, but the typical lesions of this latter disease have never been found. resemblance to acute vellow atrophy is quite superficial, and it differs from septicæmia in several ways From infective jaundice the difficulties of diagnosis may be great. The author then refers to the infective theory of simple jaundice with special reference to epidemics. but he does not believe that a single cause can account for all such Those believing exclusively in the infective origin of jaundice look upon Wiel's disease as only a severe form of this affection clinical picture of catarrhal jaundice, even when accompanied by fever. is very different from that of Weil's disease. The relation of Weil's disease to typhus biliosus, endemic in Egypt, is then discussed Some have looked upon it as the sporadic form of this disease Only the discovery of the specific agent will settle the question

REFERENCE — "But Med Journ.," Epit, February 24, 1894.

### WHITLOW.

Synopsis — (Vol 1894, p 581) Poultice of Bread Crumbs and Lead Water.

# WHOOPING COUGH. J Madison Taylor, M.D., Philadelphia.

Dr P. Baron' warmly commends the use of **Quinine**, and especially if acute lung affections complicate the case. He thinks it should be determined whether it could be used as a prophylactic. The single dose is  $\frac{1}{6}$  grain of the hydrochlorate for each month, and  $\frac{1}{2}$  grains for each year of the child's age, given three times a day, preferably at 6 am, and at 2 and 10 pm. Strong children require a larger dose, but a larger dose than  $6\frac{1}{2}$  grains to children over four years is generally not required

For whooping-cough in an infant<sup>2</sup> —

R Sulphonal gr j | Syrupı Tolutanı Creasotı πι j | Aquæ āā

Misce et fiat mistura 2 teaspoonfuls to be given every two hours.

ร**ิ**บ

A bromoform mixture for whooping-cough<sup>3</sup> —

Bromoformi spiritus Rectificati sij | Glycerini sundamomi Comp sij

Mix in the order given A teaspoonful to be taken every six hours,

Bromoform<sup>4</sup> may cause toxic symptoms unless care be observed in its administration. The last dose in the bottle may, owing to the weight and insolubility of the drug, contain an excess, no matter in what way it may be suspended. This last dose, therefore, should be thrown away, or the drug supplied in a pure form, the nurse being instructed to supply each dose separately.

Nitrite of amyl<sup>5</sup> is suggested to relieve paroxysms of whooping cough

A dose is a teaspoonful for a child of ten years, and it is claimed that if given immediately before a paroxysm it will greatly assist in relieving it

References—""Berliner klinische Wochen," No 48, 2"Therap Gaz", 3" Practitioner," 4"Brit Med Journ," Jan 6, 1894, 5"Med Age," Oct 2, 1894

### WORMS.

Synopsis — (Vol 1894, p 581) In thread worms keep up aperient action for some weeks by Castor Oil, Rhubarb, Sulphate of Magnesia, etc Irrigating by Hegar's apparatus in obstinate cases, using pure water Soap Enemata Tonics, Iron, with Nux Vomica or Strychnine, boiling of milk and drinking water, cleansing of all articles of diet and thorough cooking of meat White sugar in preference to brown Nails to be kept short and often brushed Frequent washing of the body with carbolic acid soap

# XANTHOMA. T Colcott For, MB

Fox presented to the New York Dermatological Society two patients in whom he had cured patches of vanthoma palpebrarum by **Electrolysis**, using a strength of I to 3 milliampères for the duration of one minute Elliot also spoke of two successes by this method There is no mention of the extent of any consequent scarring

Besnier, in the course of a discussion, stated that he had observed the disappearance of a generalized eruption of xanthoma in two cases during the administration of **Phosphorus**.

#### YELLOW FEVER.

Saliciup believes that when called to a case of yellow fever in the first day of the disease, 10 to 15 grains of Calomel, followed by a saline cathartic three hours afterwards, should be prescribed, and as soon as the cathartic effect begins the patient should take a cupful of hot lemonade, with 5 to 10 grains of Bitartrate of Potassium every hour until abundant perspiration is produced, this is to be kept up by the constant use of lemonade and confinement to bed for two or three days, at the end

of which time the fever generally subsides, and in many cases convalescence is established. No food is given during these days, and nothing but small pieces of ice in the mouth is allowed to quench thirst. In cases in which convalescence is not established at once, the symptoms of the third stage appear after twelve to twenty-four hours, but generally they are less severe and the majority of cases recover.

When the disease advances into the third stage the symptoms are treated on general principles. To prevent or check vomiting, preces of ice swallowed entire, iced champagne, efferivescing mixtures prepared with fresh lemon-juice, sulphuric and hydrochloric lemonades, and diluted hydrocyanic acid proved useful in many cases. The Salicylates of Sodium and Potassium, Benzoate of Sodium, and Quinine have been used in cases of the inflammatory type. Castor, Musk, or other antispasmodics are sometimes indicated when the nervous system is much disturbed. When the stomach is tolerant and stimulation is required, Alcohol and extract of Cinchona Bark combined is a very useful preparation.

Besides these, other drugs have been used according to the indications. In cases of recovery, convalescence is slow and protracted, even in cases in which the disease only goes through the first stage, and the patients remain in a state of chloroanæmia, which takes long to disappear

Salicylic Acid and its preparations are said to have been used successfully as a prophylactic of the disease by some captains of merchant vessels, who administered the acid to their crews in 5-grain doses, three times a day

REFERENCE - "Therap Gaz," December, 1893

# The Treatment of Diphtheria by Anti-Toxic Serum.

M ARMAND RUFFER, MA, MD.

During the last eighteen months the attention of the medical profession has been drawn to a new line of treatment discovered by Professor Behring, of Beilin This method is interesting chiefly for two reasons, firstly, because in it we appear to possess an efficient remedy against a disease which up to the present moment has been met with very inadequate weapons, and, secondly, because it is a second instance in which bacteriological methods and facts through experimentation on animals are being applied to the cure of human beings Since the application of Lister's method, the advances which have been made in bacteriology have been chiefly of a prophylactic nature We have been able to arrest an epidemic of anthrax, quarter evil. etc, by means of preventive inoculations, but whenever infectious disease had actually broken out we had to resort to the old empirical and extremely inefficient therapeutic measures, and in no disease has this been the case more markedly than in diphtheria of the drugs and of the methods which have been employed would fill more than the space placed at my disposal, but I can shortly sum up the whole matter by saying that up to the present moment the mortality abroad and in England among young children below ten years of age, has varied from 40 to 90 and more per cent It is the duty. therefore, of every medical man to examine carefully any method which gives us hope of reducing this moitality, even by a little, for a decrease of 25 per cent would mean a saving of several thousand lives in the year

We may first consider on what principle the method invented by Behring, and perfected by himself and others, has been based. One knows that diphtheria is caused by a specific bacillus, which was first discovered and isolated by Loffler Several years after this discovery in 1887, two French observers, Roux and Yersin, showed that the poisons secreted by the diphtheria bacillus in artificial cultures, when injected into lower animals, produced all the symptoms of diphtheria,

and that in man the general symptoms attending this disease were due to the absorption of these poisons

In 1890 Behring published his remarkable discoveries on the action of the serum of immune animals on the diphtheria poison He found that the scrum of a gumea pig, which had been artificially protected against diphtheira, had the power of saving any animal when it was injected at the same time with a fatal dose of the diphtheria poison He saw, moreover, that by successive inoculations he could produce a But in order to apply this treatserum of great therapeutic action ment to man it was evident that to obtain a sufficient quantity of serum in due course, larger animals would have to be used, hence, sheep, goats, cows and other large animals were artificially immunised for this purpose But one soon found that the best animal to use was the hoise, because it could not only iesist, without showing any symptoms of discomfort or illness, large doses of the diphtherra poison, but very large quantities of serum could be withdrawn from time to time

The immunisation of the hoise, as carried out by Messrs Robertson, Nolan and myself at the British Institute of Preventive Medicine, for the treatment of children in Great Britain, has been conducted as follows —

A horse, young if possible, is chosen, or at any rate one that is to all appearance perfectly healthy It is in the first place kept under observation for a week so that it may be properly fed up, and it is then tested with mallein in order to be quite sure that it is not suffering from chronic glanders. When the horse is in perfect health a small quantity of a filtered culture of the diphtheria bacillus, viz, a quarter of a cubic centimèter is inoculated under the skin course for an animal as large as a horse is an extremely small dose. and yet one finds that even this minute quantity often causes a swelling as large as a fist in some animals, but has never produced, as far as I know, any serious constitutional symptoms. It is often accompanied also by a rise of temperature of I degree, which lasts from six to eight hours The next day, however, the animal as a rule appears to be in perfect health After thice of four days have elapsed another quarter of a cubic centimèter is injected in the same way. This, then, produces no symptoms whatever At the end of the first week one cubic centimèter is inoculated, and, if it is not accompanied by any constitutional disturbance, that dose is repeated three times during the second week Five cubic centimèters are injected three times during the third week, and in this way the dose is raised from time to time, until at the end of six weeks or so the animal receives a hundred

cubic centimèters three times a week. The first hoise which I immunised has received over two lities of toxine, it has been bled five times, and is now in far better condition than when it was purchased. It is of the utmost importance that the animals should be kept in perfect health and in the best possible condition during that time. The treatment, if properly carried out, should never give rise to any signs of pain, discomfort, or illness in an animal so treated, and although I have been able to immunise over twenty horses in this way, I have never seen one show any serious symptoms

The horse being thus immunised, the next step is to bleed it for the treatment of children, and it is fortunate that the bleeding of horses is an extremely simple and painless operation. The jugular vein in this animal is extremely long, and runs in the jugular groove just under A halter is put on the horse's head and if it be at all restless a turnip or carrot is given to the animal to eat A pieviously sterilised cannula is then introduced directly into the jugular vein, and the blood is allowed to flow through an india-jubber tube into pieviously sterilised bottles. In this way six to fifteen lities of blood may be drawn off without the animal showing any signs of weakness or discomfort The cannula is then withdrawn, and owing to the elasticity of the walls of the blood-vessel no ligature or pressure is necessary The walls of the vein close over the opening made by the cannula, just as a needle may be put through the intestine of a man without any of the contents escaping The blood thus withdrawn is then left in ice until the serum is quite separated, and when this has taken place the serum is poured off, with all aseptic piecautions, into sterilised bottles. which are then coiked with sterilised coiks, and sealed A piece of camphor is generally added in case any micro-organisms from the air should have fallen into the serum during the manipulations In order to ensure absolute safety one or more of the tubes are placed in a warm chamber at 38° centigrade for twenty-four hours, and if no bacterial growth has taken place we may be sure that the serum is quite aseptic.

Before the treatment can be applied to children it is necessary to know what is the anti-toxic power of the seium, and in order to do so, known quantities of the serum are mixed with known quantities of diphtheria toxines of a certain strength and injected under the skin of a guinea-pig. If enough serum has been added no symptoms whatever should follow, and the quantity necessary to prevent the occurrence of symptoms will necessarily depend on the strength of the serum. Thus the serum of one of our horses is of such strength that 'oooi c.c. of it will neutralise a dose of toxine which would otherwise

and that in man the general symptoms attending this disease were due to the absorption of these poisons.

In 1890 Behing published his remarkable discoveries on the action of the serum of immune animals on the diphthena poison. He found that the serum of a guinea pig, which had been artificially protected against diphthena, had the power of saving any animal when it was injected at the same time with a fatal dose of the diphthena poison. He saw, moreover, that by successive inoculations he could produce a serum of great therapeutic action. But in order to apply this treatment to man it was evident that to obtain a sufficient quantity of serum in due course, larger animals would have to be used, hence, sheep, goats, cows and other large animals were artificially immunised for this purpose. But one soon found that the best animal to use was the hoise, because it could not only resist, without showing any symptoms of discomfort or illness, large doses of the diphthena poison, but very large quantities of serum could be withdrawn from time to time.

The immunisation of the horse, as carried out by Messrs Robertson, Nolan and myself at the British Institute of Preventive Medicine, for the treatment of children in Great Britain, has been conducted as follows —

A horse, young if possible, is chosen, or at any rate one that is to all appearance perfectly healthy It is in the first place kept under observation for a week so that it may be properly fed up, and it is then tested with mallein in order to be quite sure that it is not suffering from chronic glanders. When the horse is in perfect health a small quantity of a filtered culture of the diphtheria bacillus, viz, a quarter of a cubic centimèter is inoculated under the skin course for an animal as large as a horse is an extremely small dose. and yet one finds that even this minute quantity often causes a swelling as large as a fist in some animals, but has never produced, as far as I know, any serious constitutional symptoms. It is often accompanied also by a rise of temperature of i degree, which lasts from six to eight hours The next day, however, the animal as a rule appears to be in perfect health After three or four days have elapsed another quarter of a cubic centimèter is injected in the same way produces no symptoms whatever At the end of the first week one cubic centimèter is inoculated, and, if it is not accompanied by any constitutional disturbance, that dose is repeated three times during the second week Five cubic centimèters are injected three times during the third week, and in this way the dose is raised from time to time, until at the end of six weeks or so the animal receives a hundred

cubic centimèters three times a week. The first horse which I immunised has received over two lities of toxine, it has been bled five times, and is now in far better condition than when it was purchased. It is of the utmost importance that the animals should be kept in perfect health and in the best possible condition during that time. The treatment, if properly carried out, should never give rise to any signs of pain, discomfort, or illness in an animal so treated, and although I have been able to immunise over twenty horses in this way, I have never seen one show any schous symptoms.

The horse being thus immunised, the next step is to bleed it for the treatment of children, and it is fortunate that the bleeding of horses is an extremely simple and painless operation. The jugular vein in this animal is extremely long, and runs in the jugular groove just under A halter is put on the horse's head and if it be at all restless a turnip or carrot is given to the animal to eat. A previously sterilised cannula is then introduced directly into the jugular vein, and the blood is allowed to flow through an india-jubber tube into pieviously sterilised bottles In this way six to fifteen lities of blood may be drawn off without the animal showing any signs of weakness or discomfort. The cannula is then withdrawn, and owing to the elasticity of the walls of the blood-vessel no ligature or pressure is necessary. The walls of the vein close over the opening made by the cannula, just as a needle may be put through the intestine of a man without any of the contents escaping The blood thus withdrawn is then left in ice until the serum is quite separated, and when this has taken place the serum is poured off, with all aseptic precautions, into sterilised bottles, which are then corked with sterilised coiks, and sealed. A piece of camphor is generally added in case any micro-organisms from the air should have fallen into the serum during the manipulations In order to ensure absolute safety one or more of the tubes are placed in a warm chamber at 38° centigrade for twenty-four hours, and if no bacterial growth has taken place we may be sure that the serum is quite aseptic.

Before the treatment can be applied to children it is necessary to know what is the anti-toxic power of the serum, and in order to do so, known quantities of the serum are mixed with known quantities of diphtheria toxines of a certain strength and injected under the skin of a guinea-pig. If enough serum has been added no symptoms whatever should follow, and the quantity necessary to prevent the occurrence of symptoms will necessarily depend on the strength of the serum. Thus the serum of one of our horses is of such strength that 'oooi c.c of it will neutralise a dose of toxine which would otherwise

prove fatal to a guinea-pig in twenty-four hours. Of course it will all depend on whether the serum is inoculated at the same time as the toxine or some time afterwards. Thus, if 'cool cc will save a guinea-pig if injected at the same time with the toxine, 5 cc—that is 5,000 times that dose—will be necessary if eleven hours be allowed to elapse from the injection of the toxine to the inoculation of the serum. It is obvious, therefore, in a child which has been ill for some days a far larger quantity of serum is necessary, and hence one finds that the dose necessary for a child varies from 5 to 20 cc according to the severity of the case, and the length of time which has elapsed since the onset. Experimentally, moreover, it has been established that if one waits too long before the introduction of the serum no amount of serum will save the animal, and the same is the case in a human patient.

Before we come to the results which have been obtained by this method, it is necessary to point out one cause of error which affects all statistics on diphtheria. One finds that a great many cases which are certified as diphtheria and are admitted into hospitals, are, as a matter of fact, not diphtheria at all, as the specific bacillus cannot be found in them—Such cases nearly always recover, and if one were to include them in the statistics of diphtheria cases treated by serum, the mortality would appear to be far too low—It is necessary, therefore, before the value of treatment can be established, to examine each case so treated for the diphtheria bacillus—This should be systematically carried out when the anti-toxic treatment is being tried

The first statistics which we possess as to the value of the treatment are those published by Ehrlich, Kossel and Wassermann. They are as follows --Number of cases, 220, recoveries, 168, deaths, 52, or 76 per cent

If we divide these cases according to the time which had elapsed since the onset of the disease to the time when the patients were inoculated, we get the following results.—

Day of Disease	Number of Cases			Cures		Deaths		Cures per cent.
ıst		6	•••	б		0		100
2nd		66		64	•	2		97
3rd	•••	29		25		4		86
4th		39		30		9	••	77
5th		23		13		10	••	56 S
		Total	mort	alıty, 23	4 per	cent		

The mortality in the same hospital had always been considerably higher, but when serum was used it fell, as we have seen, by about one-half Similar and even better results have been obtained by the use of the serum, but I may perhaps be allowed to refer shortly to cases nearer home

In England Di. Washbourn, Di Goodall and Mi A H Card have inoculated eighty-two consecutive cases in children under fifteen years of age, and which had been ceitified as suffering from diphtheria. Diphtheria bacilli were found in sixty-one. The percentage of cases that were not true diphthena was thus 23.75 per cent, this number closely corresponding with Dr Roux's percentage. In one of these cases of croup there was no exudation upon the fauces, yet a bacteriological examination revealed the presence of diphtheria bacilli eleven cases which presented on admission a chinical aspect of true diphthena and in which no diphthena bacilli were present. I need not enter into the other bacteriological details, for which I can refer readers to the original paper. The serum was injected in nearly every instance in the subcutaneous tissue of the flank with all due antiseptic precautions If we eliminate eight cases which, according to the authors, were not clinically diphtheria, although they had been certified to be so, seventy-two cases remain, of which fourteen died, which gives a mortality of 194 per cent. The mortality among children under fifteen admitted into the same hospital during 1893, when no serum was employed, was 418 per cent, and during 1894 up to October 22nd, thity-six, that is, a moitality of 38 8 per cent. Of the seventy-two cases immediately preceding those treated with antitoxine, twenty-eight died, a mortality of 388 per cent thus a marked difference in the mortality of the cases treated with anti-toxine and those not so treated—in fact the one is just half the other

In the opinion of Dr Goodall, who is most familiar with the nature of cases admitted into the hospital, the cases treated with anti-toxine were rather above than below the average severity. During the same period the mortality remained very much the same as before in all the hospitals of the Metropolitan Asylums Board, in which no serum was employed. Since the publication of Dr Goodall's paper, however, five other hospitals have been supplied with serum, and I have been informed by several of the superintendents that the results have been most satisfactory

I may remark here that the deaths which I have given above, occurring in patients treated with serum, include every case, but I may say that three of those patients really should not be included in the mortality. Thus, one patient was on admission also the subject of scarler fever, and died of dyspnæa some days after tracheotomy. At

529

the post mortem examination it was found that the lower end of the tracheotomy tube had caused ulceration of the wall of the trachea, exposing the cartilage of three of the rings. The twelfth patient was tracheotomised and was doing well until the escape of some vomit into his lung set up septic pneumonia, of which he died on the thirtieth day of his illness. The thirteenth case proved fatal from scarlet fever occurring a week after admission. It was also a severe case of diphtheria in which tracheotomy had been performed, and the patient was progressing favourably when scarlet fever supervened. In nine of these cases tracheotomy had to be performed, and of these only three died, whereas the average number of recoveries after tracheotomy in the same hospital in cases not treated by serum was 1.75 per cent.

According to the same observers the signs that the anti-toxine is exercising a good effect are, firstly, a lessening in the amount of the membrane, secondly, a notable fall in the pulse rate, thirdly, an improvement in the general condition of the patient, and fourthly, a fall of temperature in cases where the temperature had been raised When once the exudation begins to disappear it continues to do so with greater rapidity than is usual under ordinary methods of treatment The pulse rate does not fall with the same rapidity with which the membrane disappears In some cases a rapid decrease in the size of swollen cervical glands, and disappearance of cervico-cellulitis have been observed. The after effects are sometimes unpleasant, consisting of a rash, and occasionally of painful swelling in the joints, but I wish emphatically to state that there is not the slightest foundation for Mr. Lennox Browne's statement that the anti-toxic serum does cause any suppression of urine, and, lastly, I may be allowed to conclude this short paper with the words of Dr Goodall, Dr Washbourn and Mr Card "We have from the evidence we have brought before you come to the conclusion that anti-toxic serum is a remedy of great value in diphtheria, and to this conclusion we have come as much from clinical observation as from statistical evidence."

## PART III - MISCELLANEOUS.

# Sanitary Science, 1894.

By JOSEPH PRIESTLEY, BA, MD., DP.H.,
Medical Officer of Health, Leicester.

#### PRACTICAL SANITATION.

A great deal has been written and said during the year about Sewer Gas, as to its being innocuous or otherwise. An important and elaborate report was presented to the London County Council by their engineer, Mr J Parry Laws, CE, who had examined bacteriologically the air in some of the London sewers, with the result that he agreed entirely with the conclusions arrived at by Dr Haldane and the late Professor Carnelly, viz, that sewer air or gas is innocuous though disagreeable, and fuither, that sewage in itself is an innocent and much maligned benefactor, whilst the air of sewers is better than that of naturally ventilated schools, and (excepting organic matter) than that of mechanically ventilated schools, containing fewer germs even than the open aii Indeed, Mi J Parry Laws found that the germs, which he discovered in the sewer an practically came from the outside air, and few (or none) from the sewage, unless by violent splashings Since Mi Pairy Laws' report, Dr David Arthur has gone over some of the same ground, investigating practically the same facts, with the result that he agrees with them, but differs in toto from the deductions to be drawn therefrom

It has yet to be shown that the absence of germs in sewer gas and its innocuousness are related as cause and effect, though Mi Laws seems to have made out a strong prima facie case against the wholesale condemnation of sewer gas as a vera causa of infectious and other diseases. The subject is an important one, and has a direct bearing on methods of ventilating public sewers, for the majority of towns are ventilated as regards their sewers by means of open grids and manholes in the centre of the public streets, and lately (more especially during the past year) there has been a growing desire on the part of sanitarians to condemn this system as being thoroughly insanitary and even injurious to the public health.

That some of these grids may, under ceitain conditions, become nuisances owing to their giving off offensive odours, no one of experience will gainsay, but whether such smells are injurious to health and whether their occurrence (comparatively rare though it may be) is sufficient therefore to warrant us in condemning wholly the system as bad, are at present subjects open to much discussion, and in regard to which much more evidence is required before any definite opinions can be formed. The whole subject has been exercising the minds of sanitarians more especially lately, and several suggestions have been offered in consequence, and will be briefly mentioned hereafter

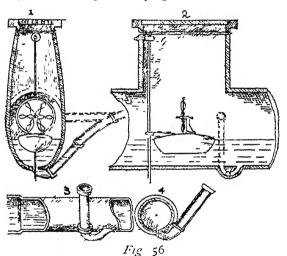
It is to be regietted that different observers have made experiments that are diametrically opposed in their results on such an apparently elementary matter as to whether sewer air contains germs or not, and of what nature, *i.e.*, pathogenic or otherwise. For instance, Mr. J. McGarrie Smith, of Sydney, has investigated the composition of the air in some of the sewers there with special reference to the presence of germs, with the result that he found it heavily charged with micro-organisms, which are carried out into the external air by shafts and other openings. Mr. Smith even goes so far as to say that "the cremating shafts failed to destroy the germs in the air passing through them—the loss being often less than one-third." Mr. McGarrie Smith is thus diametrically opposed to Mr. J. Parry Laws

Bearing upon the subject of sewer gas, Dr Giuseppe Alessi has during the year published some important results obtained from investigations carried out on rats, guinea pigs, and rabbits. By keeping his animals in cages over openings in the sewer he found that they became much more liable to infection when inoculated with typhoid germs, and further, that the gases emanating from decomposing materials had an injurious (at times lethal) effect upon them, more especially at first. Thus, during the first fourteen days, 90 per cent. died, whilst in the third week only 76 per cent. The animals became apparently "accustomed" to the noxious gases, 1e, immunised

The result of such experiments and reports is that experts are practically divided into those who regard sewer gas as nocuous and deleterious to health, attributing to such gas, most, if not all, zymotic diseases, and those who do not so regard it, but look upon it as innocuous, though disagreeable, and therefore a nuisance. Consequently, as a corollary, this subject of sewer ventilation has come well to the front at Congresses, in medical and lay papers, etc., and the open road grid ventilators have come in for a fair share of abuse, and by some been actually branded as the cause of zymotic disease. No satisfactory solution, however, of the problem as to how to ventilate

effectively sewers (if ventilation is even required) without open grids, has made its appearance, though many suggestions have been offered—the most elaborate one being put forward by Drs Arthur and Illingworth in what is called "a New System of Sewerage". A complete separation of the drain an of each house from the sewer air by causing the house drains to discharge their contents below the sewerage level at the very base (centre of the bottom) of the sewer, forming thereby an efficient (so it is stated) interceptor trap. The lower end of the drain curves upwards. In this way, even though house drain traps are out of order or absent altogether, there is no possibility of sewer gas escaping. The sewer air is

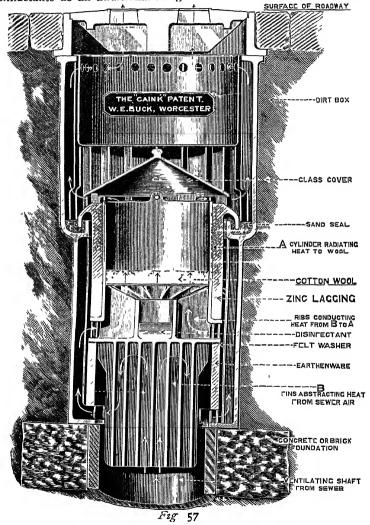
drawn or propelled by means of fans (floating or otherwise), placed in the sewer at suitable distances, and worked by electricity or other motor powei. towards what are called "cremator furnaces," which are placed in convenient localities Above each fan is a closed chamber (the flood chambei) into



which the fan ascends during floods. There are other openings (inlets for fresh air) into the sewers. There is (the patentee claims) no blocking of the drain outlets (1,) Because they are covered with water, (2,) Because no sewage contains more than 10 per cent of solid matter, (3,) Because the position of the interceptor-trap near to the sewer secures the maximum amount of flushing power, and further, there is no untrapping of the house drains (see *Diagrams*, Fig. 56)

Another system of sewer ventilation is by the "Caink" patent (Worcester), which checks all unnecessary strong currents of air and allows the sewers to "breathe" by natural ventilation, undisturbed by outside influences, whilst it filters (by means of two layers of dry cotton

wool) all necessary out-going gases. There is also a receptacle for disinfectants as an additional safeguard. The heat of the sewer an



is made use of to prevent condensation on the *under* surface of the filters (see Fig 57) The principle of the "Caink" depends upon the

assumption that the unrestricted action of the wind dries the sewer walls and sweeps the poison into the streets. The patent has been tried successfully on lengths of sewers in Worcester, Eastbourne, and elsewhere

The Reeves' system of sewer ventilation and sewage treatment depends on the action of strong sulphuric acid on a solution of manganate of soda—these chemicals being mixed continuously and automatically, with the formation of sulphurous acid gas, oxygen, permanganic acid and soda sulphate. The result is that the sewer are and sewage are deodorised and disinfected, whilst the formation of noxious gases from the sewage in transit is completely arrested. His method has been tried at Sutton, in Surrey

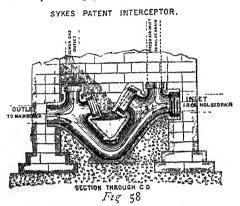
Mr Rilcy, of Huddersfield, suggests that every fall spout should be carried upwards, above the level of the building, and that a water-sealed trap should be interposed between the spout and the eaves trough which receives the water from the roof. In this way the fall spouts are the ventilators for the sewers, whilst the trap prevents any sewer gas from escaping under the troughing, or entering beneath the slates or tiles. The joints of course must be gas-tight.

Dr J T. Neech, of Tyldeslev, has also introduced a system of sewer ventilation applicable to sewers which have a rapid flow of sewage and a movement of sewer air with the stream of sewage. A length of sever is subdivided into sections by means of galvanized metal valves, the lower borders of which stop short of the bottom of the sewer so as to allow the ordinary and constant flow of sewage to pass beneath them, or the valves themselves are segmented, so that, as the stream of sewage rises in height, each segment opens as that rise takes place, and allows the sewage to flow on without opening the entire valve. In this way the movement of sewer air is arrested and ventilation assisted by enabling outlet shafts to act more certainly as such, and by causing the manholes to act in each case as inlets. The valves, by arresting the inovement of sewer air, cause the stream of sewage to assist, instead of counteracting, the action of ventilating hafts. This system has been tried successfully at Howebridge, in Atherton

For those who believe in the deleterious qualities of sewer gas, it is highly important to cut off all house drains from the main sewers, and this subject of the interceptor trap as a sanitary appliance has also been well to the fore during the year, being discussed in Journals and at Meetings—It cannot, however, be disguised that there is a feeling against the interceptor (as a sanitary appliance) setting in, and it is being admitted that such an appliance is not an unimized blessing, eg, it offers obstruction to the flow of sewage and is apt to become

blocked, more especially when the drain is laid without proper "fall," or the interceptor is made of a large size (9 inches). If all the drains are cut off from the sewers in this way, there is great interference with the ventilation of the latter, of course

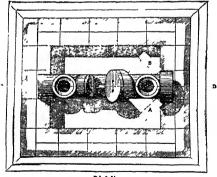
There is, however, still much more to be said on this subject of interceptor traps,\* but meanwhile even they are being improved



Thus, the principle that every house drain ought to ventilate the sewer seems practicable, and has been, therefore, applied by Mr Sykes in his patent interceptor, which has, in addition, many other improvements This interceptor (Fig. 58), consists of sealed pipes, so that the gases or the sewage are prevented from getting into the chamber, which

is used, therefore, only as means of access to the interceptor in the event of stoppage, or for repairs There is no open channel Full

provision for ventilating the sewer is made by means of the branch arm shown in the diagram. whilst the fresh air inlet admits fresh an direct into the house drains and not into the chambei Rain water inlets are also provided and made with a shoot into the interceptor. thereby thoroughly flushing the same with the roof water during a storm. The raking or inspection arms



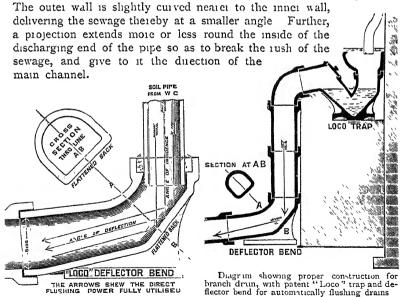
PLAN
Fig 59

<sup>\*</sup> The Hornsey Local Board have reported against the use of interceptors, contrary to the advice of their late engineer (Mr DeCourcy Meade) and their Medical Officer of Health, (Dr Clothier) The Local Government Board has refused to sanction this report of the Hornsey Board, however

are, further, screw stopped, so that they cannot be blown out by the pressure of sewer gas, whilst the pipes are Sykes' patent joint pipes, and are gas- and water-tight, being jointed with an imperishable portland cement composition. There is no necessity, therefore, for a gas-tight manhole cover. The Albion Clay Company, of 18, New Bridge Street, London, E.C., are the makers.

An interceptor trap has also been patented by Duckett and Sons, of Burnley, provided with a ledge upon which to rest a spirit level, so as to ensure the trap being evenly and carefully laid by workmen. The latent is a good one, and has been awarded a certificate of merit at the Health Exhibition, Liverpool, this year

Drain pipes and drain connections are being also improved. Thus, Messis Jones and Sykes, of London, have lately improved the constituction of curved open pipes or channels (such as are used in inspection chambers), so as to prevent the sewage from shooting over the edges of the pipes, the channel pipe being bridged across in part.



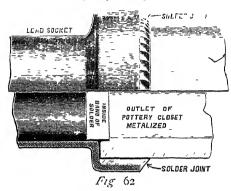
Mr Lynde, of 25, Cross Street, Manchester, has patented a perfect drain flusher under the name of "loco" deflector bend (Fig 60). The back of the bend is flattened and formed at such an angle that

F29 61

F19 60

the flushing water from the WC falls upon it so as to be most efficiently deflected down the drain. The principle is the well-known law of nature that "the angle of incidence is equal to the angle of deflection." The same principle has been applied also to the "loco" trap (Fig. 61)

The difficulty of jointing lead to earthenware has apparently been



overcome, since Messrs Doulton, of Lambeth, have patented then "metallokeramic" joint (Fig 62). A thin film of metallic compound is painted on the surface of the porcelain, which is then refired. To this the lead pipe can be soldered in such a way that it is found impossible to remove it without fracturing the pottery. The joint is perfectly air- and water-The metallic composition.

tight, standing the most exhaustive tests

which is said to contain platinum, is thoroughly incorporated with the body of the potter;

M1 Stephen Hellye1, of London, has also an efficient connection of lead trap to earthenware WC, slop-sink, or the like (Fig 63)

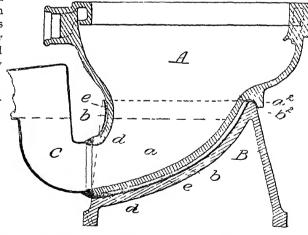


Fig. 63—The lead trap c is continued up outside the trap portion of the closet at b, and is turned over the upper part or edge of the base portion B, as at  $b^2$ , so that when the basin is out in place its over-lapping part,  $a^2$ , sits upon the lead so turned over at  $b^2$ . To give a tight joint of the lead trap round the end of the part a it is shown as having a bead at its end which receives a packing ring a, which is interposed between the outside of the end of the part a, and the opposed inner surface of the lead trap c is cement, or the like, which is placed between the outside of the part a and the inside of the part b of the lead trap

Mr. Milton Syer, of Peckham, London, has patented a "reliable" drain or pipe stopper (Fig 64), for stopping up drains for testing, gas mains whilst under repairs, etc. It is a metal disc with a grooved edge in which is carried a ring of thick india-rubber, the size being a little larger than that of the pipe or main to be stopped. Into the centre of the metal disc is sciewed a capstan handle, and the stopper is



Milton Syer's reliable drain stopper





Fig 65.

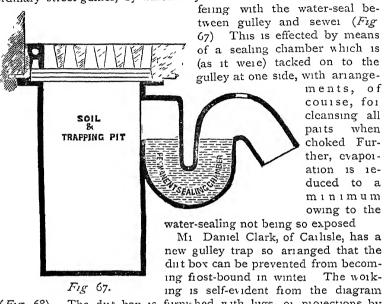
simply jammed tightly into the pipe or main. To remove the stopper unsciew the handle and withdraw it, and after it the plate and rubber flange. There is no sciewing and expanding of rubber rings Fig. 64 shows an elevation of this "reliable" plug, and Fig. 65 a section inside a pipe

Mention may be made of one or two improvements in gullies Thus, Mr I H Sankey, of Canning Town, London, has patented a deep gully and interceptor for yards, stables, house drains. and open spaces (Fig. 66) It is made of good, well-glazed, stoneware, of a great depth, and is furnished with a bucket and handle of galvanised iion, perforated near the top to allow of the water passing through The size may be so large that the bucket can be "tipped" directly into a sludge cart instead of emptying the dirt on the It is practically impossible for this gulley to untiap in the dilest weather, owing to the great depth of the water above the outlet



Fig 66

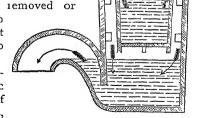
Mr. J Willoughby, of Plymouth, has patented an improvement in ordinary street gullies, by which they can be cleared without inter-



(Fig. 68) The dut box is furnished with lugs, or projections by which it is suspended on the supports inside the casing.

arrangement the dut box can take up one of two positions, eg, the position in the diagram shows the dut box raised clear of the water in the trap-an arrangement for use in winter, allowing the dirt box to be removed or attended to even when the trap A shoot arrangement directs the dirt and water into the box

Mr Cloke, of Rye Lane, London, has patented a Hygienic Ropeless coverlet for all kinds of dust and rubbish waggons, vans. carts, etc terial that will not rot, is light in Section showing basket suspended clear of water seal, to prevent basket getting frostweight, not liable to be cut with bound, and can be lowered again during summer



It is made of a ma- Fig 68-D CLARK'S PATENT, CARLISLE

tins, etc, and being ropeless, is not likely to get out of order. When once placed in position, it remains intact, whilst one half of the cart can be loaded or unloaded, the other half remaining covered.

Messrs Swaine and Hairson, of Nottingham, have invented a means of utilising the large quantity of empty cans to be found amongst the dry rubbish of towns, by means of a special kind of furnace. In this way the solder is recovered and the tin coating removed from the sheet iron, which can then be sold as light scrap iron. The solderless tins can be disposed of in destructors, or by crushing beneath a steam roller. It is stated that this method can be worked out on a large scale at a profit.

Several new disinfectants have been introduced and deserve mention

"Conditas" is a new deodoriser, dry, scentless, and harmless. It is a composite powder

Diaphtherin (the new antiseptic) consists of two molecules of orthooxychinoline, one molecule of carbolic acid, and one of sulphuric acid. It is a sulphur-yellow powder of peculiar odour, non-poisonous, and non-corrosive, and was introduced by Messis Burroughs, Wellcome and Co.

Feralogen is a new germicide, disinfectant, and deodorisei, introduced by McDougall Brothers, of London. It contains chlorine, oxygen, iion, alumina, etc., is concentrated, and so bears enormous dilution, mixing with water when stirred. In its concentrated form it is concentrated therefore dangerous.

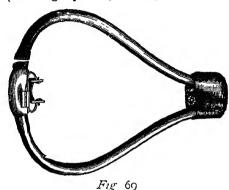
Iodic hydrang possesses greater bactericidal power than Hg  $\rm Cl_2$ , but is less poisonous i in 4000 kills germs, i in 2000 spores. It is a double rodide of mercury and potassium (mercuric-potassio-mercuric-rodide). It does not initiate and does not precipitate albumen

Lovetin is iodo-oxyquinoline sulphonic acid, and is a substitute for iodoform. The advantages claimed for it are (1,) No objectionable smell, (2,) Absence of inflammatory irritation after use. It is a true antiseptic, however

Germicide soap consists of naphthol, eucalyptol, methyl salicylate, Hg  $\rm Cl_2$ , and sal alembroth (the last two being in the proportion of 1 in 2000 respectively). It is claimed as a powerful, but harmless, disinfectant, and is made by Messis Fells and Co , Philadelphia

The Sanitas Company, of London, now supply all soits of disinfectants in addition to their own peculiar "Sanitas" preparations, and during the year have brought out their patent "sulphugators" for fumigating small spaces, eg, fowl-houses, kennels, wardrobes, etc They consist of rolls or bandages coated with sulphur, and a light may be applied to either end. They ought to be burnt in the small perforated metal cages specially supplied. The sulphugators are made in two sizes, the larger enough for 225, and the smaller for 56, cubic feet of space.

The Sanitas Company are also the agents for the "antidiphtherite" (Stenning's patent), a safeguard for doctors and others who may be



infection (Fig 69) It is an apparatus by which air is inhaled solely from the back of the wearer, the air passing through a disinfecting medium consisting of a sponge saturated with, eg., sanitas. The apparatus fits over the mouth, compressing at the same time the nostills, as shown in the diagram (Fig. 70), and when not in use hangs on

brought into contact with

the shoulders, ready to be instantly adjusted when required (Fig 71) This patent is to be recommended for work-people engaged in un-







Fig 71.

wholesome occupations, eg, metallic, etc, as well as for medical men and nurses.

Whilst on the subject of disinfection, mention may be made of the new disinfecting machine lately brought out by Mr A B Reck, of Denmark (Fig 72) The principle is an entirely new departure, and the advantage claimed is equal efficiency at a very much less cost. The chamber is unjacketed and the steam entering by a pipe at the top drives the air out of a pipe at the bottom. When all air is gone (as shown by steam issuing from the bottom pipe), this opening is closed and the steam driven into the chamber until the pressure rises to 16 lbs to the square inch, i.e., i.i.lbs in addition to the atmosphere. This is the maximum pressure allowed, and is maintained for thirty-five minutes by an automatic arrangement of a lever actuated by the pressure within. Clothes, etc., (after drying) are put into this cham-

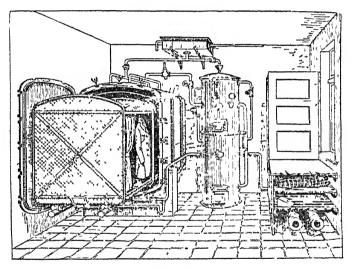


Fig. 72.

ber in a galvanised wire-work basket covered with cotton felt and sliding in and out. The articles are penetrated by the steam and the temperature is 222°F, killing anthrax spores in half-an-hour, even when the spores are piaced in the centre of a mattress rolled up in blankets. When the clothes have been disinfected, the lower hole is opened, the steam cut off, and cold water poured in at the top over an umbrella-like covering of metal over the basket. The cold water passes down the sides from top to bottom and runs out of the lower opening with the result that the steam is condensed, a vacuum formed,

and air rushes in through an automatic valve. The clothes are then taken out, and being slightly damp, are arred off.

The entrance and exit doors of the chamber are made steam-tight by means of bolts and screw nuts, and the whole apparatus may be stationary or mounted on wheels, steam being supplied from any boiler. The chamber is circular, oval, or rectangular, and may be made of any size, but can, unfortunately, never be used as a hotaut chamber for the disinfection,  $e\,g$ , of leather and fur. The apparatus is fice from danger on account of the low pressure of steam used, and is being well patronised in Denmark, Sweden, and Norway. The English agents are the Blackman Ventilating Company, Limited, 63, Fore Street, London

Lastly, a new filter has been introduced, viz, the patent Nibestos Filter. It is very easily cleaned, and the filtration is effected by a film of asbestos, which arrests all particles in suspension, and which can be changed as desired. It is one thing, however, for a filter to arrest suspended matters, and another to prevent the passage through of germs. This important subject is at present being worked at by Dr. Sims Woodhead, whose experiments so far go to show that we have been living in a fool's paradise as regards filtration of our drinking water, as a means of prevention of disease, at least as regards most of the well-known filters. The Chamberlain-Pasteur and Berkefedlt filters (the medium being hard, porous, and very finely divided) appear to act satisfactorily and efficiently, however

#### GENERAL REMARKS.

Outbreaks and epidemics of smallpox throughout the country, eg., Marylebone, Edinburgh, Brimingham, Willenham, Glasgow, etc., have proved again during the year the value of vaccination and revaccination in modifying and preventing this disease, and have shown the important rôle that tramps and vagrants play in its dissemination from place to place. In this latter connection a conference of sapitary authorities was held at the London County Council offices on July 19th, 1894, with the result that after a protracted sitting, and much discussion, the following resolutions were passed (but by no means unanimously)—

- (1,) That common shelters, which are not subject to the law relating to common lodging-houses, should be made subject to such law,
- (2,) That there should be power given to the local authorities to require medical examination of all persons entering common lodging-houses, and casual wards, and that each inmate of a common lodging-house, or casual ward, should on admission have a bath of fresh water,

- (3,) That the local authority should have power to order the keeper of a common lodging-house, in which there has been infectious disease, to refuse fiesh admissions for such time as may be required by the authority,
- (4,) That the local authority should be empowered to require the temporary closing of any common lodging-house in which infectious disease has occurred;
- (5,) That the local sanitary authorities should have power to require the detention of any inmate of a common lodging-house, or casual ward, who may reasonably be suspected of being hable to convey infectious disease;
- (6,) That means should be provided for the detention and isolation of any vagiant found wandering in a public place, if reasonably suspected of being liable to convey infectious disease,
- (7,) That the local authority should have full power to require the disinfection of the person and clothes of any person in a common lodging-house or casual ward, whether infected or exposed to infection;
- (8,) That arrangements should be made by which the occurrence of infectious disease in common lodging-houses, or casual wards, should be made known by the local authority of the district to the local authorities of other districts;
- (9,) That local authorities should be empowered to require the vaccination or re-vaccination of persons in common lodging-houses, or casual wards, who are exposed to the infection of smallpox

The above resolutions have been forwarded to the Local Government Board, but no further action taken at present

There has been a good deal of discussion during the year as to the relation between vaccinia and variola, the general opinion being that the former is a modification of, if not identical with, the latter—Bacteriologically, however, this has not been proved, though the subject is being worked at by such well-known men as Ruffer, Plimmer, Klein and Copemann. The first two investigators look upon, as the cause of vaccinia, a small round body, four times the size of a staphylococcus, and generally lying in a clear vacuole in the protoplism of the epithelial cell—This body they regard as of a parasitic nature, somewhat like the cancer protozoon, and they state that it is found in smallpox pustules as well as in vaccine vesicles—The two latter investigators, however, look upon certain small bacilli as the causa vera of vaccinia and smallpox, the parasitic bodies described by the other two observers being probably the result of epithelial irritation of a non-specific nature

The cholera precautions taken by the Local Government Board have been most effectual, and the Department has been complimented by Her Majesty. To show how far reaching these precautions were it may be mentioned that in July the Local Government Board sent round to all sanitary authorities a circular letter, advising the notification of all cases of diarrhœa (at least in persons over one year of age) during the three months of July, August and September. This is certainly an extreme measure but one that might be very useful in forewaining an authority of a coming attack of cholera, for it must be remembered that antecedent diarrhœa is common before an outburst of cholera, as it is before an outburst of typhoid fever. Several sanitary authorities adopted the suggestion

The cholera conference, held in Paiis, passed a series of resolutions of international importance which, if carried out, will be of the highest importance as preventive measures, more especially those dealing with the Mecca pilgrimages and the Persian Gulf Quarantine establishments will disappear from the British Islands, and their places will be taken by a strict execution of carefully devised regulations (eg, medical inspection, etc)

Haffkine's cholera preventive inoculations are still being tried in India and elsewhere with varying successes. No conclusions, however, can at present be drawn either for or against, and it is clear that the system is in an experimental stage, and statistics which may be useful are not yet in sufficient quantity to warrant any satisfactory conclusions.

That diphtheria is on the increase (and that too to an alarming extent) in London and other towns no one will gainsay, but the method or cause of such increase is another more important matter, which has received lately a considerable amount of attention, not only in the press but at several hygienic and medical societies. The importance of a bacteriological examination, eg, cultivation experiments with blood serum and peptone glucose broth, has been rightly insisted upon, not only in the early stages of the disease but also during convalescence, a period apparently when there is great danger of infection being transferred, eg, at school, etc.

Dark, damp, and dirty dwellings appear to favour the spread of diphtheria, whilst its virulence depends upon, and increases with, the stagnation of the soil-air and the level of the ground-water Opinions differ, however, as to whether diphtheria and insanitation are causally related—Sir W Jenner, Dr Wilks, and others thinking not, Sir George Johnson, Dr. Sidney Davies, and others believing they are.

The most important advance in connection with diphtheria, however, is the discovery by Dr Behring, and the application as a therapeutical measure by Dr Roux, of the so-called anti-toxin—ze, the immunised serum of the horse. Horses are injected with gradually increasing doses of virilent cultivations of the diphtheria bacilli until they are immune against the disease, and the serum is then collected and used as an injection or vaccination in quantities varying from 10 to 30 cc. The results at present appear highly satisfactory, not only in France and Germany but also in England, showing a great saving of life, but of course no definite opinion can yet be expressed for or against this anti-toxin treatment, though statistics, which are rapidly collecting, will be of the greatest value. The horses to be used are carefully selected, and injected previously with mallein to prove that they are free from glanders (a disease of the horse communicable to man)

1894 will be a memorable year from the fact that a plague broke out in Hong Kong about April Investigation has shown that it is the same disease that devastated London in 1665, viz, the bubonic plague, an acute, specific, fever, intensely fatal, accompanied by high temperature, cerebral congestion, delirium, and the formation of painful swellings of the lymphatic glands (inguinal and others). Its incubation is five to eight days, and the nature of the infection or contagium miasmatic, probably soil produced, and due to a bacillus discovered by the Japanese bacteriologist (Kitasato). The epidemic lasted from April to July

The report of the Water (Metropolis) Commission has appeared and given rise to great disappointment to sanitarians, from the fact that the Commissioners have reported in favour of the present Metropolitan supply for the next forty years, condemning thereby London to drink sewage contaminated water. By so doing they have practically refused to accept the excellent report by Dr Barry on the Tees Valley Typhoid Epidemic, whilst they do not think it necessary to do what Manchester, Birmingham, Glasgow and Liverpool have either already done, or are doing, viz, to procure an ample supply of pure water from great distances like Thirlmere, Wales, and Loch Katrine. The report has brought forward the interesting subject of typhoid as a water-borne disease, and rivers in relation to their powers of self-purification.\* The value of slow

<sup>\*</sup>Vide Dr Barry's Report on the Tees Valley Epidemic, Lawience's (United States) Report, Kelley's Report on the Worthing Epidemic, and Percy Frankland's treatise on "Micro-organisms in Water"

sand filtration has been insisted upon in regard to microbes in water, whilst the interesting statement has been made by Dr Burlureaux, of the Val de Grâce Military School, Buda Pesth, that by depriving water of its lime salts, you at the same time render it free from microbes, eg, typhoid, choleia

An epidemic of typhoid has been traced at Bandon to the use of 'separated' milk Infected milk was taken to a creamery, separated, and returned to other farms along with other separated milk In this way typhoid was distributed from one infected farm to all the other farms that supplied that particular creamery with milk. The conclusion to be drawn is a simple one, ie, a thorough inspection of all farms

Attention has again been drawn to the fact that crabs, oysters, and shellfish gathered near the sewage outfall of a town may, if eaten, occasionally give rise to an attack of typhoid, or even other zymotic disease. Watercress, too, grown upon sewage farms has been suspected of carrying typhoid germs, and giving rise, therefore, to attacks of typhoid fever in those who partook of them. So at least it has been reported lately by Dr. Verdon, medical officer of health for Lambeth, London.

The hopes expressed in favour of the new electrical sanitation (the Hermite system of sewage treatment) have not been realised, at least at Worthing, if we are to judge from the report published by the medical officer of health lately, proving that (as far as the Worthing trials went) there is no instantaneous decomposition of fæcal matter and no sterilisation of sewage. Other methods, however, of sewage treatment have come forward and deserve mention —

- (1,) The bacilite process at Kettering depends upon the total destruction of all organisms by the addition of certain volatile chemicals and "steam batteries". It is stated that the sewage can be purified and sterilised at a reasonable cost 90 per cent of bacteria are removed, all suspended matters, and 90 per cent. of the dissolved organic pollution. The patentee is M1 Hope
- (2,) The Scott-Moncrieff system depends upon the principle of "scavenging micro-organisms," which accumulate in upward filter beds (of 14 inches depth) composed of flint, coke and gravel. The sewage then passes along nitrifying channels, 1e, open channels filled with coke, with the result that the sewage is decomposed so effectually that the resultant effluent is perfectly clear, and purer than the standard required under the Rivers Pollution Act.

Messrs Brantigam and Edelmann have drawn attention to a chemical recognition of hoise-flesh—due to an iodine reaction of glycogen, which is a constant constituent thereof. Finely divide the suspected meat and boil with four times its weight of water. The bioth which results is to be treated with dilute nitric acid and filtered, and then the filtrate is to be acted upon with saturated hydriodic acid carefully poured in. Between the two layers of liquid a red or violet ring will develop, if the suspected meat is horse-flesh.

The Home Secretary has during the year appointed two lady inspectors of factories and workshops, whilst lady sanitary inspectors have been appointed by several sanitary authorities. In some departments of sanitary inspectors' work the employment of women may be of the greatest advantage, more especially in connection with instruction to be given to mothers in domestic hygiene, and in the inspection of dress-making establishments

The Home Secretary has added the following trades and manufacturing processes to the list of dangerous industries, viz, flax mills; linen factories, red, orange, and yellow, lead works, lead smelting, tinning and enamelling of non hollow ware, and electric accumulator works.

Underground bakenes in London and elsewhere have come in for a fair share of abuse during the year. The attack on them has been led by Dr. Waldo, of London, and it is interesting to note "the other side of the question" which has been put forth by the Bakers' Association. Some underground bakeries may be bad all are certainly not.

A select committee of the House of Commons was appointed during the year to enquire into the working of the Margarine Act, 1887, and the Sale of Food and Drugs Act, 1875, and to report whether any, and if so what, amendments of the law relating to adulteration were desirable. From this committee some much needed alterations and reforms in the carrying out of the Food and Drugs, etc., Acts are expected, and the sooner such reforms are introduced the better. The whole subject is an important one

Improvements in our methods of death certification are much wanted, and the subject has been discussed freely during the last year, culminating in a deputation which waited upon the Home Secretary, and the Parliamentary Secretary of the Local Government Board Some good will doubtless arise from this. At the same time another subject intimately connected with the above is that of the proper registration of all midwives—a measure that has long been wanted, and will, it is hoped, be obtained shortly

At the close of the year came the report on the Unification of London from the special commission appointed. The suggestions offered are most radical and sweeping, and practically mean the sounding of the death-knell of the old City of London with the succession of the London County Council as the future governing body. So much for the suggestions, but it remains to be seen whether they will be carried out or not, although the recommendations are to be brought forward at once before Parliament in the form of a Bill. The Corporation of the City of London have meanwhile formulated a scheme of their own, and are apparently prepared to fight to the end the County Council.

#### THE EDITOR'S TABLE.

## A Review of New Inventions, and Pharmaceutical and Dietetic Novelties.

The examination of the progress made by the manufacturers of medical requirements is one of the most interesting of our duties, and it has been our good fortune to undertake it during a decade which has been notable for the advances made in every department

The manufacture of surgical instruments has undergone a revolution owing to the necessity being recognized of constructing instruments in such a way that they can be maintained in a state of chemical cleanliness In the case of scalpels and many instituments, this has only implied the use of metal handles instead of those of ivory and ebony, and of suigical cases made entirely of metal, instead of leather or wood; but with other instruments, such as scissors, forceps, syringes, etc., the change has necessitated very great skill and mechanical ability on the part of the manufacturers, the main point being that every pait of the institument shall be capable of being readily taken apait and replaced, and that each pait shall be able to undergo complete disinfection. The surgeon may now throw his whole caseful of instituments into boiling water as a pielude to an operation without the chance of injuring them, and no one can doubt that we are deeply indebted to the surgical instrument maker for our capacity to carry out strict aseptic treatment, even in every-day practice

In the manufacture of appliances there is also shown a greater skill in adapting means to the end they are intended to serve, besides the saving of time, and greater portability than in appliances of former date. In pharmacy we have an attention to elegance in preparing medicines which was unknown even when we first commenced to write these reports, and much of this has been accomplished by elaborate machinery, which involved great skill and labour to render perfect. With all these advances there has been a lessening rather than an increase in the price of the articles supplied to the profession, and with it there has been an enormous increase in the trade of the medical manufacturers.

The question of cost of articles supplied for the immediate use of the profession, whether books or instruments, depends very largely upon the number of purchasers If, for instance, every medical book could be guaranteed as large a circulation as that of the "Medical Annual," it would be possible for publishers to bring out medical text books of the same size at a similar price, but it is because there is only a certain percentage of the members of the medical profession who are ready to throw aside the instrument which will do, for the one which will do better, or to expend money in keeping themselves abicast with the knowledge of the times, that the manufacturer of medical aiticles is handicapped, and must get back the cost of the original outlay from the smaller body of purchasers. It is a curious fact, borne out by experience, that the same practitioners who regularly subscribe to the "Annual," are also for the most part purchasers of other books and of the various improvements of the surgical mechanician and the pharmacist When a new aiticle is described in our pages it is brought before the notice of the large bulk of those who are likely purchasers, and especially of those who find a duty and a pleasure in making themselves acquainted with all the new advances in the practical requirements of professional work

In writing these descriptions there are two methods which might be adopted the first is the ordinary "press notice," which is practically a repetition of the statement of the manufacturer, and the second is a statement of opinion after carefully examining and testing the article under review

It is the latter method which we adopt, and we hold ourselves responsible therefore for every opinion we express, and we lay ourselves open to correction, if any of our readers after practical trial of the article reviewed should have ground for differing from our view. We do not waste time in trying to wrap an elegant piece of literature around a "toilet soap," but we endeavour to say frankly and impartially what we think about each article submitted to us, in the fewest words possible

We are aware that it is easier to invent an improvement than it is to make it known to the profession, and that the capital required for the invention is as nothing compared with that necessary to give it publicity. In this section we try to meet this difficulty. We are glad to report any and every kind of improved article likely to be of interest to our readers, providing that the article is submitted to us for examination, and we are free to express an opinion whether it is favourable or not. Save in the instance of a few manufacturers, this plan has given complete satisfaction.

Pressure is brought upon us each year to insert notices of aiticles which we have never seen, and the plea is put forward that this practice is usual with some journals. This may be true, but it is at any rate against our rule. The only exception we can make is in the case of a medical practitioner, who has made some modification of an existing instrument, or has had some article made to meet his special requirements. In such a case a description of the invention will be inserted under the author's name. The editor is responsible for all descriptions which are not so signed, and every possible test will be applied to the manufactures sent to us before they are commended to the practitioner.

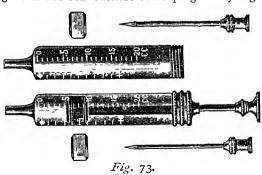
#### SURGICAL APPLIANCES AND DRESSINGS.

Air Pessaries.—This form of pessary is growing in popularity Oval in shape, and filled with air, a soft cushion is formed, which cannot possibly irritate the most sensitive. They yield readily to any pressure which may be brought to bear upon them, but spring back immediately into place. The sample submitted to us of one of these pessaries by Messis Sumner & Co is perfectly made, and is 6d. seems to us a particularly low price.

Anti-Toxin Syringes —An anti-toxin syringe, supplied in a neat case with two needles by Messrs Feiris & Co, of Biistol, is constructed on the same principle as the well-known Koch's syringe It is large enough to hold to cubic centimetries of fluid. The use of an air bulb to replace the piston of the ordinary syringe has very great advantage in regard to the convenience of keeping the syringe

perfectly clean and aseptic, although it is doubtful whether it is quite as convenient in practical use. The syringe is very perfectly constructed and carefully graduated

Another syringe adapted for the administration of antitoxin is produced by



Messrs Sumner & Co (Fig 73) This has a piston as in the ordinary instrument, but arrangements are made for antisepsis by

making the plugs of asbestos, so that the piston may be boiled before use. The case also contains additional asbestos plugs, to provide against renewal as often as may be required. There is also an additional glass cylinder, so that practically there are two syringes available, that is, if time did not permit of the absolute cleansing of the syringe, all the essential parts are available for the construction of a new one. We can find no condition present in the appliance which would interfere with absolute and rapid cleansing, and we consider it eminently adapted for the purpose for which it is intended

Another syringe which has found much favour with those who are using anti-toxin, sent to us by Messrs Ferris & Co, of Bristol, is very similar in construction and arrangement to the above, but the piston is an india-rubber disc, which is easily removable and replaceable (spare discs are provided in the case) By an ingenious arrangement the rubber can be tightened by screwing the head of the piston rod This is in itself a distinct improvement in the manufacture of syringes, and might easily be adapted to every form of syringe.

The syringe has also a smaller needle attachable to the syringe by a short length of india-rubber tube, as well as the larger needle—Both these are platinum-indium, and can be sterilized in the flame of a spirit lamp—The syringe is graduated both for French and English measures

It cannot be said that the manufacturers have not risen to the occasion and produced appliances well suited for the administration of antitoxin and other agents of its class. We described the Debove Syringe sent us by Messrs Ferris & Co last year, and this is also well suited for anti-toxin administration, and we have found it stand usage particularly well

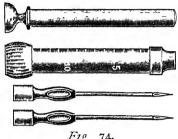
While these syringes are the result of a particular line of therapeutic investigation, we believe they will find a number of uses outside that for which they are primarily intended, and they contain improvements in the manufacture of syringes which must be permanent.

#### Hypodermic Syringes

Sumner's Aseptac —The greatest difficulty in making a syringe which shall be really aseptic is in the plug. Koch did away with the piston and plug altogether and replaced it by an india-rubber ball, an arrangement more scientific than adaptable to every-day requirements. In Messrs Sumner's anti-toxine syringe the difficulty is solved by making the plug of asbestos, but the most practicable of all appears to be arrived at in a hypodermic syringe sent to us by the same firm, where the plug is abandoned and the

This is managed by making the piston piston remains (Fig. 74) of solid metal and sufficiently large to occupy the entire calibie of the syringe throughout its whole length The cohesion between the smooth surface of the metal and the glass is sufficient to serve all the purposes of the ordinary plug To cleanse the

institument it is only necessary to draw the piston right out, no unsciewing is required, and it may be wiped, boiled, or passed through the flame of a spirit lamp without danger of injuring it There is combined in this particular institument another advantage in the fact that the needle fits into the syringe as a solid plug, only the small bore of the needle being left, instead of



the cap-like arrangement of the ordinary needle. In using syringes of this construction of needle, it must be remembered that it is possible to bring great leverage to bear upon the metal plug which forms its base, and if carelessly used it constitutes a weak point in the syringe This is obviated if the needle itself is grasped at the time when it is inserted. This syringe is a distinct advance in the construction of aseptic syringes and it is at the same time a piactical appliance, well adapted for the every day requirements of the practitioner It is supplied by Messrs Sumner & Co in a neat metal case, with two needles, for 6s 6d

Oil Piston Syringe - Messrs Feiris & Co have produced a syringe which obviates a common difficulty in general practice where hypodermic syringes may not be frequently used The piston shimks, and perhaps a long time may be occupied before it is in working In Messis Ferris & Co's syringe the piston contains an oil chamber, so that its action does not depend upon the moisture taken up from the fluid injected. It will preserve its integrity for any length of time, even in hot climates, where the old form of syringe presented frequent difficulties. It is packed in a neat case with two needles

A Miniature Hypodermic Syringe. In a little metal case two inches long and no thicker than a lead pencil, Messis Feiris & Co have placed a complete hypodermic syringe of beautiful workmanship, and having a capacity of 7 minims The needle is so arranged that it fits into the piston of the syringe when not in use, and this not only adde to the portability of the instrument, but tends to preserve the needle

from damage Now that strychnia, morphia, etc., can be carried in such small bulk for hypodermic use, there is no reason why the practitioner should not always have among the contents of his warstcoat pocket the means of giving immediate aid in cases of emergency, and this little syringe will be very helpful for this purpose.

Aseptic Jars.—Messis Sumnei & Co have adopted a very practical method of sending out aseptic sponges and diessings. They are placed in an earthenware jar which is capable of being secured absolutely an-tight. These jars are likely to be valuable for a great variety of purposes, as any substance can be kept an-tight for an indefinite time, while the jar can be opened and shut without the least trouble. They are very inexpensive

Axis Tractor.—We described Dr le Page's useful addition to the ordinary midwifery forceps in our last issue and we have been very gratified to know that our opinion of its value has been fully endorsed by our readers Messrs Sumner & Co are the manufactures

Bandage Shoot.—This is a practical invention made by Messis Reynolds & Branson It consists of a metal case suitable for hanging against a wall, is about two inches in depth, and less than two feet in



Front view showing bandages, etc

Fig. 75.



Back view showing splints

F1g. 76

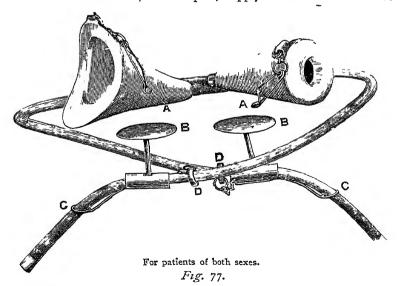
length (see Figs 75, 76) It contains an assortment of bandages of different widths, which are obtained by opening a little door at the lower part of the shoot This door has a place for safety pins, while in another part there is found a pail of scissors, and at the side a ioll of tape plaister is space for a tourniquet in the upper part, and also an arrangement by which straight splints may be placed at the back. advantage in surgery and out-patient practice when everything wanted for the application of a bandage or a splint is ready to

hand and cannot get out of place is very great, and if the emer gency occurs at a distance it is only necessary to unhook the case

and carry it to the place. The usefulness of one of these bandage shoots at police stations, colliery offices, and railway stations can be readily appreciated, and the price at which they are produced is so small that we hope they will be largely adopted By lessening the number of bandages contained in the shoot, convenient space is provided for lint, cotton wool, or other dressings. When ordered for private surgeons the manufacturers should be asked to paint them a less glaring colour than the vermilion which adorns the sample sent to us

Bed Pan (Klucke's Improved).—This bed-pan is smaller, more shallow, and more easily cleansed than the ordinary pan—It is quite large enough for its purpose, and having a convex under surface and being conveniently shaped, it is easily placed in position, without disturbing the patient, by passing it between the thighs and depressing the bed instead of laising the patient's body—It will be well liked both by patients and nuises—Messrs Sumner & Co. are the agents for the manufacturers

Bed Urinal.—Under the name of "Butcher's Patent Conduit," Messrs. Summer & Co, of Liverpool, supply a urinal which can be



used by a patient without leaving the bed or requiring the assistance of the nurse. A porcelain vessel, the shape of which depends upon

whether it is required for a male or female, is placed within the patient's reach, and on urnating the contents of the vessel flow into a receptacle beneath the bed (Fig. 77). The idea is simple enough, but in its practical application there are a number of details to be considered, and this appliance is the result of the careful working out of mechanical requirements. The arrangements are such that the most restless patient will not disturb the position of the apparatus during sleep, and the apparatus can in no way disturb the patient. There is nothing about it which will spoil by continued use, or disuse, except the straight piece of rubber tubing which can be renewed if necessary by the patient. This fact is of importance, because so many of these appliances very soon become useless. We can confidently recommend "Butcher's Patent Conduit" as an appliance which will prove of great comfort to patients and a great relief to their nurses.

Belt for Umbilical Hernia.—An india-jubber belt, with an air pad, which is capable of being inflated to any required size, has been produced by Sumner & Co, of Liverpool, for is 6d. We mention the price because it seems hardly worth while to trouble with surgical dressings and appliances, which answer more or less badly, when a practical and permanent appliance can be obtained so cheaply.

Brace (Chest Expanding).—This differs from the ordinary brace sold for the purpose of preventing stooping shoulders, in the fact that the tendency of such appliances to cause chafing under the arms is avoided, not by padding the shoulder straps, but by so altering the arrangements of the straps that the pressure comes in front of the shoulder instead of under the arm. It is an example of intelligence of design, for which the manufacturer, Mr J H Haywood, of Nottingham, is justly celebrated

Caddies (Ferris' patent).—We thank Messis Feiris & Co, of Bristol, for having solved a question which concerns us much more deeply than most of the great political questions with which the general public trouble themselves. How is the practitioner to keep his stock of lint, cotton wool, adhesive plaister, strapping, oil-silk, water-proof sheeting, antiseptic diessings, etc., etc., in anything like oider, so as to be able to find whichever is required when he wants it, and so that the several articles do not spoil as a result of the haste and waste of every day practice? Messis. Ferris & Co deal with this question by putting each dressing on a cylinder and enclosing this cylinder in a tin box, which they call a "caddy" (see Fig. 78). At the end of the caddy the name of the dressing is distinctly printed. They next produce a wooden cabinet having

pigeon-holes which fit the caddies, and these when placed in position, with the name distinctly marked at the end, enable us at once to pick out the desired dressing. The box is opened, the required quantity pulled from its reel and cut off, and the remainder is untouched and cannot soil however long it may remain. There is no place for the "caddy" but its vacant pigeon-hole, so that if a dozen of the most untidy assistants or nurses were using

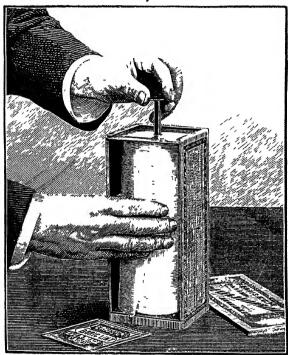


Fig. 78.

from the same cabinet, it would be impossible for any dressing to be out of its place, or spoiled by careless usage. Busy practitioners will agree with us about the practical importance of this. Some of us who are fairly tidy in our habits, so far as the limits of time allow, know too well the feeling of doubt and uncertainty with which the drawer in which the dressings are kept is turned over, and sometimes we find it, but often—"mais nous avons changes tout cela."

We can only express our sympathy for those who do not know of these useful and inexpensive caddies, which are supplied separately and adapt themselves to the practitioner's own shelves or cupboards Although for the reason we have mentioned we would recommend a cabinet where each caddy has its place

Pocket Medicine Gase.—Messrs Cox & Co, of Brighton, have forwarded us a neat pocket medicine case, containing selections of their well-known tasteless pill, arranged in formulæ suitable for meeting the ordinary class of case of the daily visiting round. The very great convenience of the physician having at hand some of the remedies most likely to be required has been frequently alluded to by us. This case is strongly made in leather, with glass-stoppered bottles, capable of holding a good supply of each of the remedies employed. It is, of course, open for the practitioner to fill the bottles with pills prepared according to the formulæ he prefers, and Messrs Cox & Co. undertake the preparation of such pills with the coating for which they are justly celebrated.

Carbolized Tow (Calvert). — Among the many new antiseptic dressings the value of carbolized tow is likely to be forgotten, yet when we have to deal with offensive discharges and require a deodorant as well as an antiseptic, there are few dressings so effective or economical as Calvert's carbolized tow. Even in ordinary surgical dressings it is not used as largely as it should be, for while it forms a most efficient and aseptic protection to the wound, the porous character of tow renders it less heating than cotton-wool or lint

Regulating Inhaler.—We noticed this very excellent incrument (the improved Junker's) made by Messrs Khrone & Sesemann, at some length in our issues for 1891 and 1892. Further minor improvements have been added, and the whole apparatus is very complete and simple for the administration of chloroform and kindred anæsthetics in exact doses.

Chloroform Inhaler (Folding) —This is a flannel mask for administering anæsthetics, so arranged as to lie flat in the pocket when not in use. It is manufactured by Mr. Hamilton Spratt, of Bournemouth

These simple inhalers are often preferable in every-day practice to the more complicated appliances, and we think this one will prove both useful and convenient.

Ghristia Lint.—This has an impermeable backing on one side and very soft lint on the other, so that the addition of oil-silk or other

protection is unnecessary. This means a great saving of time and expense in the application of ointments and compresses, and it also prevents any chance of the displacement of the protective. The backing of this lint is oil-proof, as well as water-proof, and it is also unaffected by chloroform or alcohol, and does not crackle by heat Messrs. Christy and Co. are the manufacturers.

Pocket Gocaine Pipette — Messrs Burroughs, Wellcome & Co. have introduced this instrument with a view to obviate the toxic effects so frequently produced by the indiscriminate use of cocaine solutions. With larger instruments holding a considerable quantity of the solution, sufficient for many doses, it is difficult to prevent excessive use of it. By means of this little pipette, the patient is enabled to control the quantity with the greatest possible nicety, since he cannot exceed the dose ordered by the physician, the solution being prepared from the "tabloids," one or more, as the case may be It not only secures accuracy of dosage, but it enables the patient to carry on the treatment systematically and regularly, as the appliance itself can easily be carried in the vest pocket.

Curettes.—Messis Feilis & Co supply in a neat metal case, easily carried in the pocket, a most complete assortment of flushing curettes. The common handle is made wholly of metal, and is shaped so that it can be firmly grasped by the hand. The curettes are sciewed into this handle and when in position complete a canal which passes through the handle to the extremity of the curette, so that a continuous stream of water may be played on the part during the operation. The instruments themselves, together with the case, being made wholly of metal, are easily rendered aseptic. It is the most complete, practical, and portable case of curettes which has come under our notice.

Portable Douche.—This is an ingenious arrangement by which a douche for the irrigation of wounds, for the administration of enemas, or for vaginal injection, can be carried in the surgeon's bag. The vessel for containing the water is made of soft india-rubber, the only rigid part being the mouth of the vessel and the part by which it can be hung on a nail or tied to the bed-post. There is a long pipe for the fall of the water, and attachments suitable for ordinary douche or vaginal injection. The whole apparatus can be comfortably stowed away in the coat pocket, and yet is so strongly made as to give every prospect of great durability. We decidedly think it is one of the appliances which we shall all find useful and be glad to have Messrs R. Sumner & Co. are the manufacturers.



Aseptic Dressing Forceps -This is a most ingenious allangement by which the blades of a diessing forceps are readily separated for purposes of cleansing, while the spring is in no way interfered with (Fig. 80) The whole construction is charactenstic of the large amount of mechanical skill which is being brought to bear upon modern They cost 2s 6d and may be instruments obtained from Sumner & Co

Pocket Ear Scoop and Spud -We have carried a little instrument of this kind for many years, but owing to its being made with a vulcanite handle it is impossible to cleanse it properly, and both the scoop and the spud are very rickety A similar instrument sent us by Messis Sumnei & Co has none of these disadvantages It is made wholly of metal, the scoop and spud are rigid in use, and the entire finish of the instrument is most satisfactory. It is a very handy instrument to have in the pocket case

Porous Elastic Bandage (Statham's). - This differs from the ordinary porous elastic bandage in the fact that it contains a number of fine perforations, which are only visible when the bandage is stretched The bandage is also somewhat thinner and of a softer texture than It is well adapted to give a firm even support without heating or mitating the skin. We are sure it will give satisfaction to practitioners who specify Statham's bandage, as it is a very decided improvement (H Statham & Co, Manchester)

Finger Stalls.—These are not the ordinary finger stalls used for the purpose of treating injuries, but a thin transparent membrane which fits closely to the finger and enables tactile impressions to be conveyed through it The object is to protect the practitioner's finger while making vaginal and rectal examinations The advantage of having such protection is sufficiently clear, and we have found that digital examination of the rectum is a much less unpleasant operation since we have used them They are very inexpensive, and can be obtained from Sumner & Co, of Liverpool

Angular Gouge or Parting Tool. W Arbuthnot Lane, FRCS I have for many years discarded the use of the trephine, as I consider it a clumsy and unsuitable instrument. Instead of it I have used gouges, and preferably those ground on their concavity, and with them I found that I could remove large pieces of bone with comparative rapidity. It occurred to me that an instrument with its sharp fiee margin, presenting the form of two sides of an equilateral triangle (Fig. 81), if ground on its inner surface, would remove bone much more rapidly than the concave gouge, consequently I consulted Messis. Down Biotheis, and gathered from them that a precisely similar instrument was used in carpentry, and was called a parting tool

They made me instruments of suitable temper, and I found that the results I obtained more than came up to my expectations, since I was able to remove areas of bone of any form, without injury to the dura mater, and with great rapidity. I found it convenient to use two



Fig 81

different gouges, so ground that one was more suited to the thicker dense skull of the adult, and the other to the less resistant skull of the child. At first sight, one would imagine that there would be some risk of injuring the dura mater with the sharp angle of the instrument, but with the most ordinary care there does not appear to be any risk of doing so. Certainly, I believe that there is infinitely less risk to the dura mater in using the angular gouge than the trephine, and the mechanical advantages of the former over the latter only require a trial to demonstrate them.

### A New Bone-cutting Forceps IV Arbuthnot Lane, FRCS.

In operating upon the skull and spinal column great difficulty and delay are constantly experienced in removing portions of the bone with the various kinds of forceps and chisels at present in use. To obviate this, Messis Down Bros, have made for me several forms of cutting



Fig 82.

forceps, one of which is illustrated in the accompanying diagram (Fig. 82), from which the mechanical principle upon which this instrument is constructed can be readily gathered. As far as I am aware, the

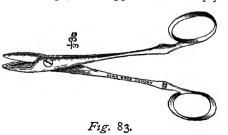
principle is an entirely new one as applied to surgery, and it is one which enables the operator to remove bone, however dense and hard. with such iapidity, safety and ease, as cannot be approached by any other surgical instrument. The instrument is seen to consist of two blades moving on one another around a transverse axis proximal blade ends in a deeply seirated surface, which rests upon the bone immediately beyond the portion which is to be removed. It acts as a fulcium around which the forceps move in a vertical plane when the handles are approximated and depressed The distal blade is claw-shaped, presenting a shaip cutting edge. This is intioduced beneath the piece of bone which the suigeon intends to remove, and when the handles of the instrument are forcibly approximated and depressed, this sharp edge tears through the bone with such an amount of power as can be readily understood from the fact that the length of the short aim of the lever, which is one of the first order. corresponds to the varying, though always narrow, interval, which exists between the ends of the two blades when in use, while for practical purposes the force that can be brought to bear upon the long arm is unlimited

# Forceps (Modification of Sir Spencer Well's Catch Forceps) J. Greeg. Smith, M.A., M.B.

For some years past I have been using in abdominal and general surgery a modification of the Well's forceps, which I like so much that I venture to recommend it to my professional brethien

The general character of the instruments is sufficiently indicated in the accompanying engravings (Figs 83, 84). Instead of the seirated jaws in ordinary use, there is a sort of double hawk's bill without any transverse seriation. Thus, the tissues caught, instead of being pressed into a corrugated ribbon shape, are nipped and sharply

compressed along one of two lines. Ordinary forceps with flat serrated jaws can be pulled upon only in the direction of the handles, they may slip on being tilted laterally so as to place a ligature. These forceps cannot slip, in whatever direction they are pulled. The pad of uncom-



pressed tissue in the centre of the jaws gives enormous holding power. For catching and holding slippery or friable ovarian cysts

they have clear advantages. In holding a divided broad ligament, the impossibility of the tissues slipping out sideways will be appreciated by those who know what such an

accident means

As hæmostatics they are, I think, superior to the ordinary pattern. They cause division of the inner coats, and the outer coat is spread out and commingled with the surrounding tissues. In abdominal surgery it is almost never necessary to apply a ligature in the parietal incision, or on divided adhesions, if these forceps are used. The sharp pointed forceps with one lip for dissecting or picking up the peritoneum is a favourite instrument with all who use it, indeed, so efficient is it, that it is doubtful if the second lip is necessary in the smaller forceps

The tips of the smaller forceps are pointed on the Tait plan, so that a ligature slips over

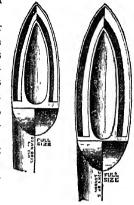


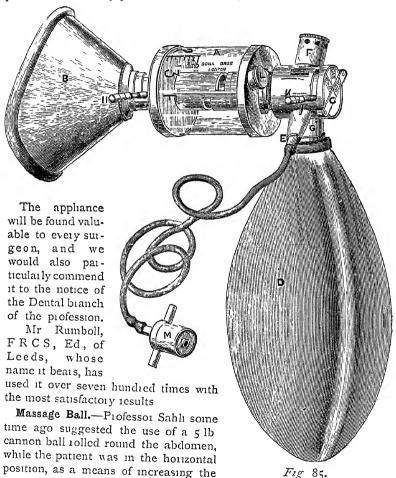
Fig 84

them easily They may be had of any size, of any shape, bent or stiaight or T shaped Messis Down Bios, of 5 and 7, St Thomas Stieet, London, SE, are the makers.

Gas and Ether Inhaler (The Rumboll-Birch).—The aim of this appliance is to facilitate the use of ether for suigical operations, and for prolonged dental operations, by the previous and conjoint administration of nitrous oxide gas (see Fig 85)

The advantage of the method is, that the patient is very rapidly rendered unconscious by an anæsthetic which is not unpleasant to take, and while unconscious the anæsthesia is maintained by ether, the nauseous odour of which is then no longer perceptible to the To carry out the administration by this method it is necessary to first give the gas alone, then a combination of gas and ether, and finally to use ether alone To do this so that the process is under complete and immediate control, requires an apparatus of very ingenious construction, and we have withheld any description of the one manufactured by Messrs Down Bios, of Thomas Street, London, until we had had the opportunity of testing the practical working of the instrument. We are glad to find that it is in every respect satis-The construction does credit to the reputation of the wellknown manufacturers, every part is well finished and free from any liability to get out of order, while the mechanism is so well airanged and clearly indicated that there is no trouble in learning how to use it

The apparatus is equally useful for the administration of gas or ether alone, and those who have already a gas apparatus in their possession need only purchase the ether apparatus.



peristaltic action of the intestine in cases of constitution. The massage ball is an endeavour to improve on this suggestion. It is made of india-rubber, is flexible, and covered with warm material. It does not, however, appear to have occurred to the inventor that the dead

weight of this ball is not sufficient to overcome the mechanical resistance offered by the abdominal muscles, in fact, a weight of 20-lbs will rise and fall with each respiration without affecting the condition of the intestines. A 5-lb cannon ball would not be of much use unless it was aided by the mechanical pressure of the person using it. But in this ball this possible means of increasing its effect is discounted by the resistance of the air contained in the ball itself, it is not, therefore a practical appliance. A cannon ball covered with flannel would be a great improvement upon it, because of its rigidity, but even then a little practical experience would show how little dead weight assists in the act of manipulation. Messis Sumner & Co are the agents for this ball.

A Medical Lamp — This is the cheapest as well as one of the most



practical medical lamps which we have seen. It is an ordinary paraffin lamp, giving a good light, which is concentrated by means of a powerful reflector Fig. 86. It may be carried in the hand or hung against a wall, and is therefore a very handy thing to have in the house, as it is not only useful for examining the eye, throat or ear, but it can be taken down and used for microscopic work or as an ordinary reading lamp. The price of the lamp is 4s. 6d and can be obtained from Messrs Sumner & Co, of Liverpool

Fig 86 Nasal Atomizer.—This atomizer is especially constructed for the application of medicinal substances

to the nose. All recent experience points to the great advantage of using for such applications an oily menstruum instead of water, and a purified petroleum which Messis Feiris & Co. have introduced under the name of Saxol (see p 578), is the best possible menstruum for this purpose. This atomizer is so constructed that it fits the nostril, and the spray appears as a smoke-like cloud from the opposite nostril. With this atomizer and a supply of saxol many cases of chronic irritation of the naso-pharyny will be found to clear up, which have resisted ordinary treatment.

Nebulizer.—This is a spray manufactured by Messis. Oppenhemer, Son & Co, for the administration of balsamic and only solutions. A large central glass vessel holds the solution, and to this is attached a tube with a mouth and nose piece, for inhaling the vapour of the spray. This part may be replaced by a tube for directing the spray to the nose or ear. The whole of the attachments being of hard

rubber, are not affected by any form of medicament which may be employed it is equally serviceable for only or watery solutions. The appliance is, however, rather larger than is strictly necessary for the purpose it is intended to serve.

A New Needle Holder.-In many operations a good needle-holder is a most important instrument, and the one submitted to us by Messis Ferris & Co will materially shorten the duration of many, in which the time occupied is an important element in the danger to the patient. The handle of this needle-holder presents a breadth which slopes from one to two inches, so that it can be firmly grasped in the hand, and the needle is under the full contiol of the operator, both in directing its movement and overcoming any resistance offered to its passage But the most important part of the invention is that by simply compressing the handle beyond a certain point the needle is released and the laws open leady for a fresh one, which is grasped and held ligidly by the same movement of the hand Thus the release of the needle and its re-giasping, or the placing in position of another, does not literally occupy more than a second This needle-holder is a most important addition to surgical appliances. It is supplied by Messis Feiis & Co, of Bustol

Oiled Cambric.—This, which is also known as muslinette, is a recent production of the firm of Sumner & Co — It serves all the purposes of oil-silk, in fact we prefer it, and it is only half the price

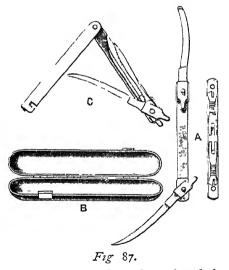
Saccharometer (Carwardine's) —With this simple instrument the estimation of the quantity of sugar in unine presents no greater difficulty than the mere detection of its presence. No calculation is required, the actual percentage of sugar being shown at once on the burette. It is employed as follows. Unine is poured into a graduated burette up to a certain mark and a fixed quantity of water added A definite quantity of Fehling's solution is then boiled in the test tube, the diluted unine being added until the blue colour disappears, when the quantity of sugar may be read off on the burette. The price of the instrument is only 7/6, and Messis. Mayer & Meltzer may be congratulated on their very excellent addition to our appliances for exact diagnosis.

Sim's Folding Speculum.—This is a Sim's speculum made in two portions so as to overcome the awkwardness of carrying the necessary instrument. It is made wholly of metal, and when fitted together has the full rigidity of the speculum made in one piece. This point is important, and we can say from careful examination of its construction that no force employed while it is held in position will affect its

rigidity. We do not know if one point has occurred to Messrs Feiris & Co who send us the institument, and that is, that the two halves of the institument form a most convenient method of making an examination of the vagina. By using the two blades simultaneously we have a bivalve speculum with independent "valves," which can be manipulated so as to obtain a very full view of the vagina for ordinary diagnostic purposes.

Surgical Aseptic Pocket Knife.—This knife presents a solution to the problem, "How can a practitioner carry a knife in his pocket and still keep it aseptic?' In the first place we have a metal handled pocket knife, the parts of which are all separable for the purposes of cleansing, and which is as easily opened and fixed as the ordinary pocket knife (Fig. 87). This is a practical improvement on some of

the common handles for aseptic knives, as they were a little awkward to manage contains knife blades, but either of these blades is instantly replaceable by four others which are supplied in the same case with it Thus the practitioner has a complete assortment of straight, curved and blunt-pointed bistouries, adapted for the purposes of minor surgery, all of the most improved kind, and the space occupied by the whole is not more than that which would be required for a large sized pocket knife. metal aseptic case is pio-



vided with an extra chamois-leather cover in order to keep the whole bright. The arrangement is so perfect in every practical detail that it is not possible to suggest an improvement, but we should like to see one little addition which we feel sure that many practitioners would appreciate. It is a metal case just large enough to hold the metal handle and its two blades. This would be the exact size of an ordinary surgic I pocket knife, and enable the practitioner, if he preferred it, to leave the additional blades at home, while preserving all the advantages of having a pocket knife which is perfectly aseptic.

We have no doubt that Messis Sumner & Co, from whom this knife may be obtained, will make this addition if required.

Surgical Stockings.—By the introduction of a continuous spiral elastic thread, Mr J H Haywood, of Nottingham, has made an elastic stocking which has no seam, so that the discomfort ordinarily attending the wearing of these stockings is very largely obviated. We notice also that the material of the sample sent to us is much softer than the ordinary "silk elastic" stocking and more porous, and we shall certainly order this form of stocking for our patients. The same maker has also invented a stocking which can be instantly tightened or loosened at any point, an advantage which all who have had to treat varicose veins will readily appreciate, and our readers will do well to take note of this invention.

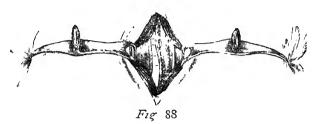
Suspensory Bandage (The Octopus).—This bandage has a broad well-shaped band for passing round the back, and is fastened by broad elastic bands, which can be tightened without the use of a buckle. The whole workmanship and finish is of a very superior character to that of the ordinary bandage sold, and the article is also more comfortable in use. Mr. J. H. Haywood, of Nottingham, is the manufacturer.

Hollow Back Truss.—Mr J H. Haywood, of Nottingham, has designed a truss to meet the requirements of those patients, who having rather prominent vertebræ, find the truss chafe the skin. It is so arranged that the pressure is taken off the centre of the back, and comes wholly over the sides of the lumbar region where, owing to the absence of bone, a considerable amount of pressure may be exercised without causing discomfort. We think that this shape of truss is well suited to all classes of patients, as it is always an advantage to avoid pressure over the spine

Universal Protective.—Under this name Messrs Feilis & Co supply a fine, almost transparent, water-proof material which is an excellent substitute for oil-silk and much less costly. It may be obtained on rolls in their patent caddies, which is the best way to preserve these diessings

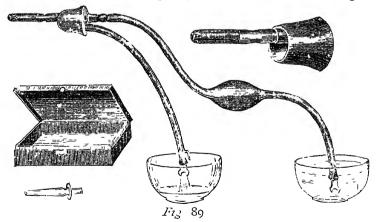
Wound Retractors.— Mr. Jordan Lloyd, Lecturer on Operative Surgery in the Mason College, Brimingham, has devised an instrument, which he has called a self-retaining retractor or wound hook. The retractor can be best understood by a glance at the diagram (Fig 88). It is made of steel and is nickelled, the hook at one end being fenestrated and blunt, for introduction between the edges of a wound; the other end is pointed, so as to hook easily into the skin of

an adjacent pait or other resistant structure. The small puncture made by the fixing hook is of no consequence and heals immediately. They are made in various patterns and sizes, those with sharp hooks at each end are useful in holding the edges of widely gaping wounds temporarily together while sutures are being inserted. The hooks may also be used in the same way as ordinary retractors, or they may be fixed into bandages, and held in the same manner. They are of



service in numberless operations, where the "antiseptic" hands of assistants may not be available—such as tracheotomy, hernia, ligatures of arteries, excision of glands, and other deeply-seated swellings, cranial operations, excision of joints, etc. They are made by Messis Down Bros, St. Thomas Street, London, S.E.

The "Zula" Syringe and Irrigator.—This syringe is constituted with a vaginal plug which completely closes the mouth of the vagina



so that the used liquid is compelled to pass out through the inside of the plug and through the outflow tube (Fig 89). Thus the same

liquid can never be injected twice, and the syringe may be used while reclining on a couch without the least danger of wetting it. The douche pipe has a flexible joint, which makes it very easy to introduce, and also pievents any possibility of injuring the parts A bone rectal tube is supplied with each "Zula" Syringe, and it fits into the same socket as the vaginal plug, which is detachable, thus forming an ordinary enema. The utility of this appliance is so obvious, both for vaginal douches and for the purpose of an ordinary enema that the practitioner can hardly afford to be without it

#### PROGRESS OF PHARMACY.

Anestile—This is composed of ethyl and methyl chloride—It evaporates at a lower temperature than ethyl chloride and produces local anæsthesia more promptly, and a smaller quantity is therefore necessary—It is sold by Mr B Kuhn in nickel-plated copper cylinders, which can be re-filled—The method of use is the same as the ethyl chloride spray, viz, the heat of the hand holding the cylinder is sufficient to cause a fine jet of anestile to play upon the part against which it is directed, the anæsthetic effect being the result of rapid evaporation temporarily freezing the part.

Antinervine.—This is a combination of peptonized salicylic biomonilid, produced and legally protected by D Radlauer, and sold by Mr. B. Kuhn It is claimed to be an excellent palliative in cases of neuralgia and rheumatism, and also to act as an antipyretic

Antiseptic Perles (Radlauer).—In these perles we have a combination of thymol, menthol, eucalyptol, and saccharine in globular form They have been found to act as an effective antiseptic to the mouth, larynx, and tonsils. Two or three of them are allowed to dissolve slowly in the mouth, and are then swallowed Mr B. Kuhn is the agent

Bismuth Salicylate Tabloids.—Each tabloid contains 5 grs of the bismuth salicylate, guaranteed to be physiologically pure, dose (adult) ranging from 1 to 4 tabloids—5 to 20 grs The drug itself being insoluble in ordinary menstrua, such as water or alcohol, these tabloids are so compressed that upon ingestion they very quickly disintegrate. The astringent and antifermentative properties of bismuth salicylate ender tabloids of this drug very useful in various forms of diarrhea, lue to typhoid, pulmonary and intestinal tuberculosis, gastric catarrh, i.e. Burroughs, Wellcome & Co. are the manufacturers.

Bronchi-fume.—This is an asthma powder, produced by Mr W. A Manning, of Ash Tree Villa, Boldmere Road, Wylde Green, London It differs materially from the ordinary asthma powders in use, and there is no doubt that some of its efficacy is due to the active principle of cubebs and anisced which enter into its composition. We all know the necessity of changing the remedy in asthma, and this one deserves a careful trial at the hands of the profession.

Gelery Compound (Morse's Glycerole of) A drachm of this is stated to contain the equivalent of celery seed, 4 grains, catsup herb, 5 grains, chamomile, 2 grains. It has been found to be an excellent schattive both for children and adults, and careful examination has been made to discover some stronger sedatives than those mentioned by the manufacturers, such as opium, chloral, etc., but without result. We strongly commend the remedy to the profession, especially for the troubles of infants during dentition. Burgorne, Burbidges & Co., 16, Coleman Street, London, E.C., are the agents

Creasote —Messrs Feiiis & Co, of Biistol, send us samples of this useful but unpleasantly flavoured drug, put up in the form of capsules, containing either 1, 2 or 3 minims, and also pills containing 1 minim. There is no doubt that this is the only way in which creasote can be dispensed without causing nausea to the patient. With guaracol it does undoubted good in early stages of phthisis, but is less valuable in advanced cases. The same firm also supply capsules containing a combination of creasote with cod-liver oil

Diaphtherin consists of two molecules of oitho-oxychinoline, one molecule of carbolic acid, and one of sulphuric acid. It is a sulphuryellow powder of peculiar but slight odour, soluble in equal parts of It is an excellent disinfectant, as, notwithstanding its powerfully antiseptic action, it does not possess the poisonous caustic action of phenol, nor the toxic properties of oxychinoline, it is also free from corrosive qualities Its bacteria-destroying and polyseptic properties have been shown by the experiments of Professor Emmerich and Dr Stabel to be very great A specially valuable property of diaphtherin is that it is comparatively non-poisonous. This has been demonstrated by extensive experiments on both human beings and animals, and it was found that quantities capable of producing toxic effects were not required for therapeutical employment In the treatment of burns, ulcers, etc., in eczematous conditions, in diseases of the ear and nose, in otology, and rhinology, and in dental practice, excellent and even brilliant results may be expected from the use of diaphtherin. Messrs. Burroughs, Wellcome & Co. are the agents.

Easton's Syrup Tabloids (Tabloid Trium Phosphatum) —These tabloids may be prescribed instead of the syrup, as they are more convenient and more portable, while they are equally effective. The objections to the syrup, viz, its bitterness, often excessive acidity, effect on the teeth, solidification and deposition, are well known, all these are avoided in the Easton's syrup tabloid. Each tabloid represents exactly the respective proportions of non, quinine, and strychnine, contained in a fluid drachm of the official syrup. Burroughs, Wellcome & Co are the manufacturers

Emol Keleet.—This interesting substance, which was brought forward by Dr Allan Jamieson, of Edinburgh, and which is described in this issue (p. 24), has been placed in the hands of Messrs. Burroughs, Wellcome & Co, for distribution. It is a natural dusting powder of a most perfect character, having an almost impalpable texture and a delicate flesh-pink colour, due to the presence of a small quantity of ferric oxide. It contains a considerable percentage of steatite (better known as soap-stone), which accounts for its peculiar silky feel when rubbed between the fingers. It has been used by Dr. Jamieson for the treatment of callosities of the skin, and has been found to answer better than any other application.

Ergole —This is a purified and concentrated preparation of ergot, very suitable for hypodermic injection, or for administration by the mouth. It contains all the active properties of ergot, and is less irritating. It is manufactured by Messrs Oppenheimer, Son & Co

Extractum Corticis Cerebri — Messis Willows, Francis and Butler have kept pace with the modern development of therapeutics by preparing an extract of the cortex cerebri. Whether the effect be chemical or physiological there is no doubt that preparations made from the brain, taken internally, have a sedative and strengthening effect upon the nervous system. We all have cases where there would be at least no harm in trying this remedy now that it can be obtained in the form of a convenient preparation.

Ferratin.—This is a new preparation of non which claims to be identical with the non stored in the body, especially in the liver, as a reserve material for the formation of blood. It appears as a fine powder of a reddish character, resembling the oxide of non. It is free from and is insoluble in water, but a sodium salt is also manufactured which is soluble. Cases have been recorded by various authors to show that this preparation is well borne by patients who cannot take ordinary iron salts, and that the results have been remarkably good. It is supplied by Messrs Parke, Davis & Co.

Gelatum Eucalypti.—This is a jelly of eucalyptus which may be used for antiseptic purposes, for sprays, munction, or any of the purposes for which the properties of eucalyptus are required. Its advantage is in the fact that it is prepared with a non-fatty base, and is therefore more suitable for many purposes than the pure oil or ointments made from it. Messrs Mackey, Mackey & Co. are the manufacturers.

Germicide Soap (Fels's) —This soap is a very efficient antiseptic, of pleasant odour, and has had a large sale in America, where its virtues are much appreciated Messis Lorimer & Co. are the agents

Guaiacol —This substance has practically taken the place of creasote in the treatment of phthisis and pulmonary disorders, on account of its less disagreeable odour and taste. One of the best methods for prescribing it is in the form of guaiacol carbonate, which Messis Ferris and Co, put up in 4-grain capsules. This is practically tasteless, but splits up in the digestive canal into guaiacol and carbonic di-oxide.

Hypoderms (Soluble)—Messis Oppenheimer send tubes containing the various medicines required for hypodermic use, put up in tiny pellets, which have the great advantage of instantly dissolving in water, without any trituration. The readiness with which they dissolve quite removes the difficulty ordinarily experienced with this otherwise convenient method of carrying hypodermic medicines, and they will be much appreciated. Messis Oppenheimer also supply a hypodermic syringe in a next case, with space for four tubes of these soluble pellets.

Iron Jelloids .- We have examined this new form of dispensing Blaud's pills with considerable interest It is known that the efficacy of these pills depends upon the non being pieseived as a ferious carbonate, but there is a great tendency for it to become converted into the unassimilable ferric state. Messis Warrick Bios, of 18, Old Swan Lane, London, have, as the result of experiments, shown that the ferrous carbonate may be preserved by its admixture with gelatine as the ordinary jujube mass. They have produced little gelatinous pellets, not larger than an ordinary 2-grain pellet, and of the same shape, but which contain the equivalent of a ro-grain Blaud's pill The preparation is not only elegant, but it is the only one of its class which may be dissolved on the tongue and found to be not unpalatable by those who find a difficulty in swallowing an ordinary pill The question as to whether the jelloid contains the iron in its ferrous state can be always determined by cutting one in half with a knife, when the light colour of the interior will show that oxidation has not taken place. We propose to give these jelloids an extended trial in both hospital and private practice

Itrosyl.—This has been produced by Messrs Fletcher, Fletcher & Co as a means of preparing spirit of nitrous æther of definite strength in such quantities that the risk of loss of ethyl nitrite by evaporation and decomposition is reduced to a minimum. The itrosyl is supplied only in glass cartridges containing I fluid ounce, hermetically sealed, and will prove of special advantage for hospital use, or in the army medical department, where the saving in storage space is an important consideration.

Kidney Extract — Messrs J Richardson & Co, of Leicester, send us a powdered extract of kidney put into tablets, each containing 5 grains. An opportunity is thus afforded the profession of conveniently testing the therapeutic advantages of this new medicinal agent.

Lactophenine —This agent is practically identical with phenacetine, the place of acetic acid in the latter being taken by lactic acid. It is four times more soluble in water than phenacetine, which gives it a great practical advantage. The reports are very favourable, its hypnotic and analgesic power being well marked, and only occasionally is faintness and perspiration complained of Messis Parke, Davis & Co are the agents for the manufacturers

Liq Cinchonæ Hydrobrom (Fletcher) —In this preparation the active principles of the cinchona bark are dissolved out by means of hydrobromic acid, and the resulting extract concentrated in vacuo It contains the whole of the alkaloids present in the bark, and, in addition, the kinic, kinovic, and cincho-tannic acids, together with the natural constituents of the bark Iron compounds, and more particularly bromide of iron, can be prescribed with the hydrobromic extract without being decomposed, blackened in coloui, or precipitated This property is possessed by no other extract of cinchona, and will be of manifest value in cases in which the physician desires to administer iron in conjunction with cinchona These facts render this preparation a distinct improvement in pharmacy, and we have no doubt that it will receive a cordial reception at the hands of the profession Fletcher, Fletcher and Co. are the manufacturers

Nebulizing Solutions —Under this name Messrs Oppenheimer, Son and Co have put up fifteen combinations for use as a spray in various affections of the throat and nose Their compositions are stated, and there is in the one before us a marked flavour of benzoin, which would be very suitable in some cases, though not appreciated in others.

They also supply a pure petroleum base, to which the physician can add the necessary medicaments

Nuclein.—This substance is the result of careful enquires into the nature of the germicidal constituents of the blood serum. The nucleins may be said to form the chief chemical constituents of the living part of the cell. Chemically they are proteid bodies, containing a large amount of phosphorus in the form of a nucleinic acid, combined with a highly complex base. So far as we can gather the acid in all is the same, while the base differs. The nucleins are used therapeutically by means of injections repeated daily, or at longer intervals. They belong to a very promising line of investigation, and Messis. Parke, Davis & Co., supply gratuitously literature bearing upon the subject, which is well worthy of attention.

Pepsin, Bismuth & Charcoal.—We have here tabloids, each of which represents I gr pepsin, 2 grs bismuth subcarbonate, and 2 grs purified willow charcoal. The pepsin used in this combination has a digestive power of I in 3,000, as indicated by the official congulated albumen test. Burroughs, Wellcome & Co are the manufacturers.

Petroleum Emulsion (Angier's).—This preparation consists of a highly purified petioleum oil, combined with the hypophosphites of lime and soda. It is a very good emulsion, mixes readily with water, and is palatable and well borne by delicate stomachs There can be no doubt that petroleum is antiseptic, and that it exerts a special soothing effect on inflamed or initiated mucous surfaces. Its nutritive value is perhaps still a moot question. While there can be no doubt as to the gain in weight (often quite marked) from the use of Angier's petro leum emulsion, it may be that this gain is largely due to the effect the emulsion has in the digestive tract indirectly by aiding in the digestion and assimilation of other foods. This petroleum emulsion has been used principally in pulmonary and bronchial affections, and as a substitute for emulsions of cod-liver oil It has created a most favourable impression, and we think that medical men generally will find it a most useful addition to their list of remedies

Roncegno Water.—The natural ferruginous assential waters of Roncegno, of Mount Tesobo in the province of Trent, are now exported to this country. Every litre of the water contains over 6 centigrammes of arsenious acid as well as 2 grammes of ferric acid. It is also rich in silica, the value of which in minical waters is not sufficiently appreciated. It has been found to be of especial value in the treatment of skin diseases, and of affections depending upon anæmia and debility. Locally the treatment by Roncegno has a good

reputation in chronic uterine disorders, and it is also highly esteemed by those who suffer from a malarial cacheria. The dose of this powerful water is I to 4 tablespoonfuls, mixed with plain water, during the day. Mr Richard Davis, of Maddox Street, Regent Street, London, W, is the agent for this country.

Santal Oil —This, and also other essential oils, may now be obtained, put up in palatinoid form, from Messis Oppenheimer, Son & Co

Saxol — This is a remarkably pure petroleum in the liquid state, intended as an application to the nose and throat or any inflamed or abraded surface. It is odourless, colourless, and tasteless, it is perfectly aseptic, and is not affected by either strong acids or alkalies, and it has the great advantage of favouring the absorption of any medicinal matter incorporated with it in an unaltered state. Messis, Ferris & Co also supply a spray especially adapted for the application of medicinal substances dissolved in this menstruum to the nose, and we can from practical experience say that without any medicinal addition a spray of saxol is one of the best prescriptions that can be ordered for chronic inflammatory conditions of the nose and throat. The spray is described in the previous section.

Styptic Yarnish (Antiseptic).—We once read a long article in a medical journal on the treatment of a cut finger. The necessity of rest, accurate apposition of the parts, and entire asepsis, were fully set out, with a distressing attention to detail. Our suggestion is as follows "Apply styptic variath with a camel's hard brush." This is made by Sumner & Co, of Liverpool, and in addition to being strongly styptic is also a powerful antiseptic. It helps to maintain the parts in apposition, and it promotes healing. It is useful as an application to any form of cutaneous hæmorrhage.

Tar (Wine of) —This production of Messis Sumner & Co's is about the most palatable preparation of tar with which we are acquainted, and there is no doubt that tar is a most valuable remedy for catarrhal and inflammatory conditions of the throat and air passages

Testicular Tablets — Messrs Chaix and Remy, of Pairs, have forwarded through their agents, Messis Ferris & Co, of Bristol, samples of testicular extract in the form of tablets. These are prepared in precise accordance with Brown-Séquard's method, and render it very easy for the practitioner to test in actual practice the remarkable claims put forward for this organic extract. Messrs Ferris & Co keep all the "organic extracts" in stock, together with the appliances used in their administration.

Thyroid Elixir .- Among the various preparations of thyroid gland

sent us by Sumner & Co, of Liverpool, we notice an clixir which is very palatable, moreover it appears capable of being kept for an indefinite time without injury

The following samples have also been received -

Messrs Mackey, Mackey & Co. send Mist Ceru Co., Mist Bismuthi Co, and Mist Cascara Co, as samples of the elegant phaimaceutical preparations prepared by them They also send a preparation of Chlorodyne, and of an Antiseptic Solution useful for wounds and diessings, the composition of which is not stated

Messis Burgoyne, Burbidge & Co send a sample of *Malt and Pepsin*, which is too well known and esteemed by the medical profession to need further remark

The Maltine Manufacturing Co send samples of their well-known preparation of *Maltine and Cod Liver Oil* to show the great improvements made in its manufacture

The Standard Disinfectants Co send a specimen of *Florozoon* which they claim to be a purely vegetable and non-poisonous disinfectant, but of which, save that it has a pleasant smell, we are unable to speak, as the composition is not stated

Messis Newbery & Sons send us samples of numerous preparations for which they are agents. Most of these consist of special formulæ, which have been long tested clinically before being put up in elegant form for physicians' use. A list of these special preparations, containing full particulars of the constituents of each, can be obtained from Messis. Newbery & Sons, and will be helpful to practitioners.

## DIETETIC ARTICLES

Beef Broth—This is a new production of Messis Brand & Co, whose dietetic preparations are well known to the profession. It is sold in time in the form of a jelly, and requires only the addition of hot water to make an excellent broth, and it can be given as a jelly if preferred. It is less expensive than the beef essence and can be used freely as an invalid food, for which purpose it is well suited

Beef Jelly.—The Bovril Co now prepare a beef jelly, prepared simply by the use of gentle heat, without the addition of water. The result is a strong clear jelly of a very pleasant taste, which will prove useful in those cases where a stimulating food is required in small bulk. It is put up in wide-mouthed glass bottles, easily opened, and is much to be preferred to similar preparations dispensed in tins.

Beef Jelly (Halford's) — This is an excellent beef essence, which appears as a clear jelly—It has a high nutritive power, and pleasant

taste, and may be safely used as a restorative in cases of sickness.

Gerebos Salt.—This appears as a fine white salt very suitable for table use, but differs from ordinary salt in containing the nourishing and strengthening properties of wheaten bran, which are removed from corn in the milling of white flour, but which are none the less essential to vigorous health. The idea is a good one, and is well worked out. The manufacturers deserve and have received considerable support from the medical profession. The salt will be much appreciated by all who use it. It is manufactured by Messrs Mawson, Swan and Weddell, Newcastle-on-Tyne

"Champagne-sans-Sucre."—A champagne which can be recommended "freely and advantageously" in cases of diabetes, gout, and rheumatism will be regarded as a boon both by practitioners and those who are dieted by them. A wine stated to possess these desirable qualities has been submitted to us by Messis. Hertz and Collingwood. It is prepared by the well known wine-growers, Laurent-Perrier & Co, and it is stated that no sugar or alcohol is added in the process of manufacture. We are quite prepared to accept this statement, but we should have preferred to have known more definitely how a sparkling champagne can be produced "sans sucre."

We notice that the "Lancet," in its analytical report, speaks of the "freedom from sugar" in this wine, and that the "British Medical Journal" in one notice, Jan 20th, 1894, speaks of it as "sugar free," and in another notice, May 12th, as "practically free from sugar," and on August 25th, after giving in detail the analysis of Professor Fresenius, of Wiesbaden, who finds sugar (calculated as dextrose), o 17 gramme in 100 c c, states that, "it may be regarded as free from sugar, and that "it can be taken in all cases in which the presence of sugar, even in small quantities, has to be considered as injurious"

These statements justify the manufacturers in asking the medical profession to recommend it in cases of diabetes, gout, and rheumatism, and the fact that the "British Medical Journal" has impressed the value of this wine upon the profession three times in eight months, shows the great appreciation in which it holds it.

Our examination of the wine by two independent analyses of separate samples shows that it contains not less than 55 grains of sugar to the pint, a quantity which, while rendering it deserving of a high place among the "dry" champagnes, is not below the proportions found in other especially "dry" brands, and which renders the name "champagne-sans-sucre" a misleading designation—It perhaps may be explained that the name only implies the absence of "added"

sugar, and the manufacturers probably assume that everyone knows it is impossible to produce a sparkling champagne which is sugar free. But if we allow such arguments, where is the limit to be fixed?

The medical practitioner is so dependent upon the trade description of articles which he is asked to prescribe that we should fail in our duty if we did not take exception to any designation that might lead to error.

The wine itself is good, and its combination with coca, supplied by the same firm, makes an exhibitanting tonic beverage which can be recommended with every confidence to a large class of patients, without especially selecting sufferers from diabetes, gout, and rheumatism.

Coca Wine (Hall's)—This wine is particularly noticeable on account of the large quantity of the extract of coca leaf which it contains. The wine used in its manufacture is good, and is well selected for blending with the flavour of the leaf. It is more palatable than some specimens of coca wine we have examined, and is decidedly a valuable preparation for obtaining all the effects of the coca leaf. The manufacturers are Messrs. Stephen Smith & Co., Bow, London, E.

Diabetic Foods.—We have received from G Van Abbott & Sons a selection of their various foods and biscuits suitable for diabetic patients, and a practitioner, having to put an invalid upon a starch-free diet, can hardly do better than direct his patient to send to 6, Duke Street Mansions, Grosvenor Square, for a sample of each of Messis Van Abbott's products We notice two additions to the list which will be hailed with pleasure by invalids, one is a biscuit made of soya flour flavoured with carraway seed, the other a most palatable ginger biscuit. In both, the amount of starchy matter is reduced to a minimum, and they are decidedly likely to be preferred to most foods of the same class

Malted Coffee.—Malt has been used in combination with so many foods that it is almost surprising that this is the first malted coffee we have been called upon to notice. Pure coffee is very apt to cause dyspepsia, and it always appears more digestible when mixed with other substances, and none could be better for this purpose than malt, as it also aids the digestion of other foods. We find that the coffee used in this preparation quite conceals the taste of the malt, and that it is a very palatable and wholesome beverage. Messis Blackmore, of London, Bristol, and Brimingham are the patentees.

Marrol.—This is an entirely new preparation, consisting of the marrow of ox bones combined with hopped malt extract. The taste is pleasant, and we think children would take it well spread on bread and butter. It will be particularly useful in cases where fatty foods are needed, but are not tolerated by the patient, and should be

tried in cases of phthisis. It is manufactured by the Liquor Carnis Co, and is a distinct addition to our resources for dealing with a difficult class of case.

Meat Juice (Brand's) — Messis Brand & Co have produced a fluid meat juice which is made by submitting beef to pressure in the cold By this means all the natural constituents of the beef are extracted, and the juice preserves all the flavour of the fresh beef. The large quantity of albuminoid it contains is shown by the fact that it turns quite solid on boiling. It can be safely recommended to invalids, and its taste and nutritive value will cause it to be much appreciated.

Meat Juice (Shepperson's Concentrated).—This is a very excellent preparation of meat juice, manufactured by the Liquor Carnis Co. It contains the albumins and albuminoids in their raw condition in a greater abundance than many other preparations of the same character, and is an invalid food of the highest nutritive value. It is sold, moreover, at a most reasonable price. Nothing has done more to limit the consumption of a form of food invaluable to invalids than the exorbitant price at which most of these preparations are sold. The taste of this preparation is more palatable than most others of its class.

Oat Flour and Oat Flour Biscuits (Midlothian).—These productions of the firm of A & R Scott & Co, of Glasgow, are of particular value to invalids because they contain all the flesh-and-bone forming constituents of oatimeal, fried from the husk, which is often irritating to those of weak digestive powers. An analysis of the ash shows that this flour is very rich in phosphoric acid and in salts. The biscuits are as pleasant to the taste as they are nutritious, and we are very glad to have made the acquaintance of these excellent foods, which we can recommend with every confidence

**Pepsin** (Essence of) —Under this name Messis Armour & Co have produced a liquid pepsin the colour of a pale sheiry, and perfectly bright and clear. It is palatable, and may be taken in doses of I or 2 teaspoonfuls after meals. It is a very convenient and reliable method of administering pepsin.

Red Marrow (Extract of).—At a Meeting of the Manchester Medical Society, Professor Dixon Mann said that the red marrow of bone was probably the chief agent in promoting the development of red blood-corpuscles, and at his request Mr Benger, of Manchester, has prepared an extract which is devoid of any unpleasant taste or odour. It may be given in tea-spoonful doses once or twice a day, either out of the spoon of spread between thin slices of bread. The treatment of a number of patients in the Salford Royal Hospital by

this extract has shown that in each case there was a marked increase—in some of more than a million red corpuscles per cubic millimètre—in from four to nine weeks. Marrow extract appears to be an agent capable of affording valuable aid in the treatment of anæmia, and also of oligæmia due to loss of blood from causes such as placenta prævia, hæmorrhoids, and wounds

Tea Tabloids.—The advantage of being able to carry the material for producing a hundred cups of pure tea in the waistcoat pocket will commend itself to travellers who know the difficulty of procuring a good cup of tea, even at the best continental hotels, while the price of these tabloids of Messis Burroughs, Wellcome & Co, renders them economical even for domestic use

Whisky.—We have received from Messis Margiave Bros, of Llanelly, samples of their Scotch and Irish Whiskies, both of which are well matured spirits, which we can recommend with every confidence, in fact, we can go further, and suggest to our readers that they should sample them for themselves

Wine of Beef Peptones—This contains the peptones of beet combined with sheary, and the result is a pleasant wine, of high nutritive power, which undoubtedly can be commended as a stimulant in all forms of exhaustion, as well as an agreeable tonic in cases of convalescence. Messis Armoui & Co are the manufacturers

Cotton-wool Underclothing. -It is difficult to enter into the comparative ments of cotton-wool and animal wool in the matter of underclothing, but there can be no doubt that the materials manufactured by Dr Lahmann have very much the softness and more poiosity than the same class of material made of animal wool when both have been washed for a few times It appears that the main question depends less upon the actual nature of the material than upon texture, the desideratum being that it should be so woven as to form air-spaces The air warmed by the body will then form a non-conductor of heat of considerable value. while if the same material were woven with the same closeness of texture as a linen shirt, it would possess all the known disadvantages of such garments The materials manufactured by Di Lahmann (Agency, 15, Fern Street, London) have none of the objectionable qualities of the ordinary cotton underwear, and they are less costly and more durable than those made of sheep's wool Medical men and others who have used them for some time and can speak from experience, which is the only test in this case, like them better than the woollen goods to which they were previously accustomed

# Lunatic and Idiot Asylums and Homes for Inebriates in Great Britain and Ireland.

We are very anxious to make this list complete, and to give all necessary information, but unless our circular of enquiry—which in every case is stamped for icply—is promptly returned, we cannot undertake the responsibility of inserting particulars of an Establishment which may have been closed

ABERDEEN.—Royal Asylum Res Med Sup, Wm Reid, MD, Tieasuiei, Wm Cainie, 27, Exchange Street

ABERGAVENNY.—Joint Counties Asylum Res Med Sup, James Glendinning, M D Access—G W R Station, ½ mile, L and N W Station, ¼ mile

ANTRIM.—Glenside House Med Piop, Dr Giahim

ARGYLL and BUTE—District Asylum, Lochgilphead Res Med Sup, J Cameron, M D Access—Rail to Greenock, thence by Steamer to Ardrisharg, 2½ miles distant

ARMAGH.—Course Lodge, Richhill, 5 miles from Aimagh (for ladies only) Piopiietois, James and Wm Oii, Visiting Physician, Dr R Giay Access—Richhill Station, thence by own Conveyance, 2 miles

Further information on page 706

District Asylum Res Med Sup, Dr W Graham

The Retreat Proprietors, A D Allen & Sons (For 21 male and 15 temale patients, higher and middle class) Res Med Sup, Dr J Gower Allen Access—Richhill, thence cab 1½ miles

AYR.—District Asylum Res Med Sup, C H Skae, M D Access—Ayı Station, 2 imiles

**BALLINASLOE** (Co. Galway).—District Lunatic Asylum Res Med Sup, R V Fletcher, M D, Asst Med Off, John Mills, M B Access—Ballinasloe

BANFF.—District Asylum, Ladysbridge Res Sup, David Fowler Visiting Physician, Wm Ferguson, M.D. Access—Ladysbridge Station

BARNOLDSWICK (Yorkshire).—Greeta Bank. Prop, Mrs Parker. Med Sup, Dr Metcalfe Access—Bentham Station, 2 miles

BASCHURCH (Shropshire).—Boreatton Park, 10 miles from Shrewsbury Res Med Sup, Di Sankey Access—Baschurch Station
Further information on page 697.

BATH.—Bailbrook House Prop and Res Med Sup, Lionel A Weatherly, M D Access—Bath, 15 minutes' drive

Further information on page 699

BECKENHAM (Kent) - Springer off Prop., Mis. Stilwell

BEDFORD.—Bishopstone House, Ashbuiham road (for 10 females). Prop and Med Sup, Wm Sinipson Ciaig, M D Access—Bedford

Further information on fage 700

Springfield House Asylum, I hour from London Res Med. Sup, D Bower, M D Access—Bedford, I 1/2 mile

BELFAST.—Belfast District Lunatic Asylum Res Med Sup, A S Menick, M D.

**BEYERLEY.**—East Riding County Asylum Res. Med Sup., M. D. Macleod, M B Access—Beverley Station, 2 miles

BIRMINGHAM.—Birmingham City Asylum, Winson Gieen. Res. Med Sup, E B Whitcombe Access—Winson Gieen, ½ mile, Soho, ¼ mile

BODMIN.--Cornwall County Asylum Med Sup., Dr. R. Adams
BOX (Wilts).--Kingsdown House, 5 miles from Bath Res Med.
Sup, Di. H. C MacBryan Access—Box

Further information on page 700

BRENTWOOD.—Essex County Asylum. Res Med Sup, Dr G Amsden. Access—Brentwood, ½ mile

BRIDGEND.—Glamor gan County Asylum Res Med Sup, H T Pringle, M D Access—Bridgend, I  $^{1\prime}_{2}$  miles

BRISTOL.—Brislington House, 2½ miles from Bristol Res Med Supt, Dr. B B. Fox Access—Brislington, 1½ miles

City and County Asylum Res. Med Sup, Hairy A Benham, M D Cleik, Aithui Oime Access—Fishponds Station, I mile

Northwoods House, Winterbourne, 7 miles from Bristol Props, Reginald Eager, M.D., and T. G. Seymour Access—Cab from Bristol, or from Fishponds, Yate, or Patchway Stations.

Further information on page 704

BROMSGROYE.—Birmingham City Asylum, Rubery Hill, near Bromsgrove Res Med Sup, A. C Suffein, M.D. Access—Rubery Station.

BURGESS HILL.—St George's Retreat, Ditchling Res Med Off, Dr. John A Cones Access—Burgess Hill Station

Further information on page 698

**BUXTON**—Wye House Res Phys, F K Dickson, FRCP Access—Buxton.

CAMBRIDGE.—County Asylum, Fulbourn Res Med Sup, E C Rogers, M R C.S Access—Cambridge, 3 miles

CANE HILL, Purley (Surrey) — London County Asylum Res Med Sup., Di J. M Moody Access—Coulsdon Station, 10 minutes

**CARLISLE.**—County Asylum Res Med Sup, J. A Campbell, M. D. Access—Carlisle, 3 miles.

**CARLOW.**—District Asylum. Res Med Sup, Di T P O'Meala Access—Carlow.

GARMARTHEN.—Joint Counties Asylum Med Sup, Edwin Goodall, M D Access—Carmarthen, 2 miles

**CHARTHAM** (Near Canterbury).—Kent County Asylum. Res Med Sup, G. C. FitzGerald, M D Access—Chaitham Station, I mile

GHEADLE.—Manchester Royal Lunatic Hospital Res Med Sup, G. W Mould, MRCS Access, Cheadle, 2 miles

**CHESTER.**—Cheshire County Asylum Med Sup, J H Davidson, M D

CHURCH STRETTON.—Stretton House, Shropshire, (for gentlemen)
Med Sup, Dr H Barnett Access—Church Stretton Station, 10
minutes' walk
Further information on page 694

The Grove House (for ladies) Res Prop , Mrs. McLintock  $\,$  Med Sup , Horatio Barnett, M A , M B

R C Kirkby, M R.C S Eng, L R C P Lond, Res Sup and Sec, John J C Turner Payment cases received from all parts Election cases only from Eastern Counties

CORK.—District Asylum Accommodation for 1,200 patients Res Med Sup, Oscar Woods, M.D. Access—Cork, I mile.

Lindville Med Prop, Dr J Osborne.

**CUPAR** (Fifeshire).—Fife and Kinross District Asylum. Med. Sup, A R Turnbull, M B

**DARLINGTON** (Durham).—Dinsdale Park Res Med Sup, J W. Eastwood, M D, M.R.C P, Lond. Access—Dailington, 5 miles, Dinsdale, r mile

DARTFORD.—City of London Asylum, Stone Res Med Sup, Di. E W. White. Access—South Eastern Railway, Dartford, I mile

**DENBIGH** (North Wales).—North Wales Counties Lunatic Asylum. Med Sup, Dr. Llewelyn F. Cox Access—Denbigh, 1 mile.

**DERBY.**—Borough Asylum, Rowditch Res Med Sup, Dr Macphail Access—Great Northern Station, 1 mile, Mid, 2 miles

County Asylum, Mickleover Res. Med. Sup, Dr Lindsay Access—Derby, 5 miles, Mickleover, 2 miles

**DEVIZES.**—Wilts County Asylum Res Med Sup, John Iteland Bowes, M R C.S Access—Devizes, I mile

DORCHESTER.—Dorset County Asylum Med Sup, P W MacDonald, M D Access—Dorchester, 3 miles

**DOWNPATRICK.**—District Arylum Res Med Sup M J. Nolan, L R C P., I, and L M

DRUMCONDRA (Co. Dublin).—Hartfield Retreat Mcd Prop, Di Lynch Vis Phys Dr Matthew Burke Savage Access—Dublin, 2 miles

Highfield (foi ladies) Hampstead (foi gentlemen) Med Prop, John Eustace, M D Further information on page 699

**DUBLIN.**—Bloomfield, Donnybrook Road Med Supt., Henry T Bewley, M D , F.R C P ,I

Farnham House and Maryville, 3 miles from Dublin (for 56 patients, both sexes) Prop and Res Med. Sup, A Patton, M B Access—Cab from Dublin

House of St. John of God, Stillorgan Vis Phys Dr. McEvoy Access—Stillorgan Station, ¼ mile From Dublin 5 miles

Richmond District Asylum. Res Med Sup, Di C. Norman

Dudley Station, 4 miles

Woodbine Lodge, Bathfainam, 6 miles (ladies) Prop, Mis Hayes **DUDLEY** (Stafford).—Ashrvood House, Kingswinford, Props, Drs Peacock & Pietersen Access—Stourbridge Junction, 3 miles, or

**DUMFRIES.**—Cruchton Royal Institution Med Sup, James Rutherford, M.D., F.R.C.P., E., etc. Access—Dumfries, I mile

DUNDEE.—Royal Asylum, Westgreen Res Med Sup, James Rone, M.D. Access—Dundee, 3 miles, Liff, 1½ miles

**DURHAM.**—County Asylum, near Durham Res Med Sup, Robert Smith, M D Access—Sedgefield Station, 3 miles, thence by 'Bus

EARLSWOOD.—Asylum for Idiots Res Med Sup, Di Harry Coinei Males 400, females 200 Admission by election or payment of 50 to 200 guineas per annum Apply to Sec, 36, King William Street, London Bridge, E.C. Access—Earlswood Station, close to the Asylum, Red Hill Junction, 1½ miles Open for inspection Tuesdays between 11 and 5 o'clock Further information on page 697

**EDINBURGH.**—Mavisbank House, Polton, Midlothian Res Med Sup, G R Wilson, MB Access—Polton Station, North British Railway, 5 minutes' walk

Midlothian and Peebles District Asylum. Res Med Sup, R B Mitchell, M D. Access—Rosslynlee Station, I mile

Mollendo House, Musselbuigh Piop, P Mackenzie Cons Phys, Thos R Scott, M D Res Med Sup, A W Mackenzie, L R C P, Ed Access—Musselbuigh Stat, 10 minutes' walk

Further information on page 698

Royal Edinburgh Asylum, Morningside Res Phys Sup, T S Clouston, M D., F.R.C P, Ed Access—Edinburgh, 1½ miles

Saughton Hall Res Med Sup and Prop, D1 John Batty Tuke, MD, FRCP, Ed. Access—Gorgie Station, 15 minutes

ELGIN.—District Asylum Med Sup, J W N Mackay, M D

ENNIS.—District Asylum Res Med Sup, Richard Phillips Gelston, LRC.S., I, LRCP, I Access—Ennis Station, 11/4 miles

ENNISCORTHY (Co. Wexford).—District Lunatic Asylum Res Med Sup, Thomas Drapes, M.B. Access—Enniscoithy, I mile

EPSOM (Surrey).—Church Street (for 14 ladies) Res Med Sup, Dr W Clement Daniel Access—Epsom Station, 5 minutes' walk

**EXETER.** —Czty Asylum, Heavitiee Res Med Sup, R L Rutherfold, M D Access—Exeter, L and S W R, 3 miles, G W R, 4 miles

Court Hall, Kenton Prop, M1 Mules Access—Statcross, 1 mile Devon County Asylum, Exminster. Med Sup, G Symes Saunders, M D Access—Exminster Station, 1 mile, Exeter, 4 miles

Wonford House (Hospital for the Insane) Res Med Sup, P Maury Deas, MB, MS Lond Access—Exeter Stat (Queen St) 1½ miles, (St David's), 2 miles Further information on page 702

**FAIRFORD** (Gloucestershire).—Fairford Retreat Res Med Prop, Daniel Iles, MRCS Access—Fairford Station

GATESHEAD.—Dunston Lodge Asylum, Newcastle and Gateshead Prop, Mr W Garbutt Res Med Sup, Dr Brough Access—Newcastle-on-Tyne Station, 3 miles.

GLASGOW.—District Asylum Res Med. Sup, James H Skeen, MB Access—Bothwell and Fallside Stations, ½ mile

Royal Asylum, Gartnavel, Glasgow. Res Phy Sup, D Yellowlees, M D , LL D

**GLOUCESTER.**—Barnwood House Res Med Sup, J. G Soutar, M.B, C M. Access—Gloucester, 2 miles

Further information on page 702

Gloucester County Lunatic Asylums, Wotton and Barnwood, Gloucester Res Med Sup, F. Hurst Ciaddock, M.A. Oxon, M.R. C.S. Access—Gloucester Station, I mile

**GOUDHURST** (Kent).—*Tattlebury House* (for 6 males and 2 females) Res Med Sup, Di. J S Newington. Access—Goudhuist, I mile.

GREAT YARMOUTH.—Royal Naval Hospital Dr John Wilson, R N, Fleet Surgeon in charge Access—Great Yarmouth Station, 1/2 mile For Naval patients only, admitted by Admiralty order

HADDINGTON.—District Asylum, 17 miles from Edinburgh. Med Sup, J Bruce-Ronaldson, MD, FRCS, E, etc Access—Haddington Station, 10 minutes' walk

**HARPENDEN** (Herts.)—Harpenden Hall, 4 miles from St. Alban's (for 13 ladies) Prop and Med Sup, A H Bovs, MRCS, LRCP., Ed Access—Harpenden Station

**HATTON** (near Warwick).—County Asylum Res Med. Sup, Alfred Miller, M B Access—Hatton Station, 2 miles, Warwick Station, 3 miles

HAYWARD'S HEATH.—Sussex County Asylum Res Med Sup, C. E Saunders, M D Access—Hayward's Heath Station, 1½ miles

**HENLEY-IN-ARDEN** (Warwickshire).—Glendossil (for both sexes)
Res Prop, Dr S H Agai Access—Great Western Railway

HEREFORD.—County and City Asylum Med. Sup, T. A Chapman, M.D

HITCHIN (Herts), near — Three Counties Asylum Res Med Sup, E Swain, LRCP Access—Three Counties Station, I mile

**HULL.**—Borough Asylum Med Sup, J Merson, M.D. Access—Willerby Station, I mile

Craven Street Retreat, Sculcoates Prop, J Brown. Access—Hull, I mile

INVERNESS.—District Asylum Med Sup, John Keay, MD, Asst Med Off, W Russell Strapp, MB, CM Access—Inverness, 2½ miles.

IPSWICH.—Borough Asylum Med Sup, D1 E L Rowe Access—Ipswich, 2 miles

**ISLE OF MAN.**—Lunatic Asylum, Union Mills Med Sup, W Richardson, M D Access—Douglas, 3 miles

ISLEWORTH (Middlesex).—Wyke House Res Prop, Di F Murchison Access—Islewoith, Brentford, Osterley Stat, I mile

IVYBRIDGE (Blackadon).—Borough Asylum Res Med Sup, D1 A N Davis Access—Kingsbridge Road, and Ivybridge 1½ miles

JERSEY.—The Grove. Res Med Plop, Flancis Neel Gaudin, MPC, MRCS Eng, LSA Lond 2½ miles from St Heliers, 2 from St Aubin's Access—GWR, via Weymouth, 4½ hours lail from London, and 5½ hours sea passage, per L and S.WR, via Southampton, 2 hours rail and 8 hours sea passage

Further information on page 695
Res Med Sup Dr Wm 7

KILKENNY.--District Asylum Res Med Sup, Dr Wm Z Myles

KILLARNEY.—District Asylum Res Med Sup, Dr L T Giiffin Access—Killainey Station, ½ mile

KINGSTON-ON-THAMES.—Canbury House Piop, W H Roots MRCS

KNOWLE (near Fareham).—County Asylum Med Sup, T B Worthington, M D

 $\begin{array}{ll} \textbf{LANGASTER.--} \textit{County Asylum.} & Res \ Med \ Sup \,, \, David \ M \ Cassidy, \\ M \ D \,, \, D \ Sc & Access-- Lancaster \ Station \\ \end{array}$ 

LEEDS (near Menston) West Riding Asylum Res Med Sup, Dr McDowall Access—Guiseley Station

LEIGESTER.—Borough Asylum Res Med Sup, J E M Finch, M D Access—Humberstone G N R 1/2 mile.

Leucestershire and Rutland Asylum Res Med Sup, Dr W. H Higgins Access--Leucester town, I mile

**LETTERKENNY** and **LONDONDERRY.**—Donegal District Asylum Res Med Sup, Edward E Moore, M D Access—Letterkenny and Lough Swilley Railway, ½ mile

LEYTON (Essex).—The Great House Prop., Mrs Davey

LICHFIELD.—County Lunatic Asylum, Burntwood, near Lichfield Res Med Sup, James Beveridge Spence, M D Access—Lichfield City Station, 3½ miles, Trent Valley Station, 4½ miles; Hammerwich, 1½ mile

LIMERICK.—District Asylum Res Med Sup, Dr E D O'Neill LINCOLN.—County Asylum, Biacebiidge Med Sup, J W Maish, MRCS Access—2½ miles from railway station

The Lawn Res. Med Sup, Arthur P. Russell, MB Access— Lincoln Station, I mile Further information on page 698

LIVERPOOL.—Shaftesbury House Near Liverpool and Southpoit Res Med Sup, Stanley A Gill, BA, MD, MRCP, Lond. Access—Formby Station, ¼ mile distant. Further information on page 696.

Tue Brook Villa, 3 miles from Liverpool Res Med Sup, Geo Duffus, M B (For 52 males and females) Access—Tue Brook Stat.

LONDON.—Bethlem Royal Hospital, St Georges Road, London, S.E. Res Med. Sup, R. Percy Smith, M.D., F.R.C.P.

Further information on page 701

Bethnal House, Cambridge Road, N.E. Res. Med Sup, J. Kennedy Will, M.D. Access—Railway Station near East London Museum

Brooke House, Upper Clapton. Props, Mr H. T Monro and Dr J O Adams, Res Med Sup, Dr. J O. Adams. Access—Clapton Station

Camberwell House, S.E. Prop, J. H. Paul, M.D. Res Med Sup., Frank Schofield, M.D.

Chiswick House Chiswick, and 37, Albemarle St, W. Res Lics, T. Seymour Tuke, MA, MB, MRCS, and CM Tuke, MRCS Access—Chiswick Station, 34 mile, Turnham Green Station, 34 mile County Asylum, Colney Hatch, N Med Sup., W. J. Seward, MB Access—New Southgate, GN Rly

Featherstone Hall, Southall. Med Lic, Miss H E Dixon Res Med Sups, Drs Hack, Tuke, and Graves Buiton Access—Southall Station, 5 minutes' walk

Flower House, Cat'oid, S.E. Res Med Sup, C. A. Mercier, M.B. Access—C. and D. Rly., Beckenham Hill, 5 minutes' walk

Further information on page 703

Goudhurst, Stanley Road, Teddington. Res. Med. Sup, Dr R A Clarke

Grove Hall, Bow (both sexes). Med. Lics, Mr. Byas and Dr Mickle Access – Bow Road and Bow Stations, 1/2 mile

Halliford House, Sunbury-on-Thames, S.W. Res Med. Sup, W. J. H. Haslett, M.R.C.S. Access—Sunbury Station, 14 mile Further information on page 704

Hayes, Wood End House (ladies). Uxbridge, 3 miles, London, 12 miles Med Lic, Dr H Stilwell Access—Hayes Station, 1 mile

Haves Park, Hayes, Middlesex, near Uxbridge. Res. Med. Sup, H F Winslow, M D Access-Hayes Station, 2 miles

Henlon Grove Asylum, Hendon, Middlesex Res. Med Lic, H Hicks, M D Access—By Mid Rly, Hendon Station, ½ mile, or 'Bus from Swiss Cottage, St John's Wood, N W

Hoxton House, London, N. Res Med. Sup, John F Woods Access—Shoreditch Station, two minutes' walk, Liverpool Street Station, ten minutes' walk

London County Asylum, Hanwell, W Res Med. Sup, R R Alexander, M D

Middlesex County Asylum, Banstead, S.E. Res Med Sup T.C. Shaw, M.D. Access—Belmont Station, ½ mile, Sutton Station, 1½ mile.

Muddlesex County Asylum, Tooting, SW Med Sup, H G Hill, M R C S Access—Wandsworth Common Station, I mile

Moorci oft House, Hillingdon (males) Uxbridge, 2 miles, London, 13 miles Med Licensee, Dr Stilwell Access—West Drayton Station, 2 miles

Newlands House, Tooting, Bec Road, SW Prop, Dr. H Sutherland. Res Med Supt, E T Hall, MRCS

Northumberland House, Green Lanes, N. Prop, A H Stocker, M.D. Access—Finsbury Park Station

Otto House, 47, North End Road, Hammersmith, W. Med. Sup, Dr. H. Sutherland. Access—West Kensington Station, 1/2 mile

Peckham House, Peckham, S.E. Piop, Alonzo H. Stocker, M.D. Res Med Sup, Harold C. Halsted, M.D. Access—Peckham Rye Station, 10 minutes' walk

Further information on page 685

Peterborough House, Fulham Res Med Sup, Di. James Robt Hill. Access—Parsons' Gieen or Chelsea Station, 5 minutes' walk Silverton House, Peckham Rye Prop, Mrs A G Preston.

St Luke's Hospital, Old Street, E C Med Sup, G Mickley, M B Sutherland House, Surbiton, ni Kingston-on-Thames (ladies). Res Med Sups, Robt. Collum, M D, M R C P, Lond Access, Surbiton 1/2 mile

The Huguenots, East Hill, Wandsworth, S W (ladies) Prop, Miss Leech Med Off, Dr G F Blandford Access—Clapham Junction Station, 10 minutes, Wandsworth, 3 minutes

The Priory, Roehampton, S W , near Richmond. Res Med Sup , James Chambers, M D  $\,$  Access—Barnes Station 8 minutes' walk

Vine Cottage, Norwood Green, Southall Prop, Mrs Oliver Med Sup, Dr Thornton Access—Southall Station, I mile

LONDONDERRY. — District Asylum Res Med Sup, Dr Hetherington

MACCLESFIELD.—Parkside Arylum Res Med Sup, T Steele Sheldon, M.B., Lond Access—Macclesfield Station, I mile

MAIDSTONE.—Kent County Asylum Res Med Sup, F Piitchard Davies, M.D. Access—Maidstone Station, 1½ miles.

West Malling Place (for ladies) Castle House and Winthies Cottage (for gentlemen) Res Med Sup, Di James Adam Access—Malling Station, i mile.

MARKET LAYINGTON (Wilts).—Inddington House. Prop and Res Med. Sup, C. Hitchcock, M.D. Access—Devizes Station, 6 miles

Further information on page 701

MELROSE, N.B.—Rovburgh District Asylum Res Med Sup, J. C. Johnstone, M.D. Access—Mchose, 1 mile

MELTON.—Suffolk (ounty Asylum, Melton, near Woodbridge Res Phys and Sup, Wilson Eager, LRCP Access—Melton Station, 14 mile, Woodbridge Station, 24 miles

MONAGHAN (Ireland).—District Asylum, Res Med Sup, Dr Edward Taylor Access—Monaghan, ¼ mile

MONTROSE, N.B.—Montrose Royal Lunatic Asslum Phys Sup, J C Howden, M D Access—Hillside Station, 14 mile, Dubton Station, 1 mile

MORPETH.—Northumberland County Asylum Res Med. Sup, Thos W McDowall, M D. Access—Morpeth Station, 1 mile, by 'Bus

MULLINGAR.—District Asylum Res Med Sup, Di A D. O Finegan

NELSON (Lanc.).—Marsden Hall (for both sexes) Res Prop, Mrs Bennett, Med Sup, Dr A P Millar Access—Nelson or Colne Stations, 1½ miles

NEWCASTLE-ON-TYNE.—City County Asylum, Gosforth Res Med Sup, Jas Thomas Callcott, M.D. Access—Newcastle, 1 mile

NEWTON-LE-WILLOWS.— Haydock Lodge Asylum Med Prop, E H Beaman, MRCS, Ed, Res. Med Sup, Dr C l' Street Access—Newton-le-Willows Station, 2 miles

Further information on page 703

NORTHAMPTON.—Berrywood Asylum Res Med Sup, R Greene, FRCP, Ed Access—Castle Station, 2 miles Midland Station, 2½ miles

St Andrew's Hospital Med Sup, J Bayley, MRCS

NORWICH.—Heigham Hall Licensees, Mis Watson and Mi. Alfred Mottram. Res Med Sup, Thos. J Compton, M D.

Norfolk County Asylum, Thorpe 800 Beds Res Med Sup, David G Thomson, M D Access—Norwich (Thorpe) Station, 2½ miles

Norwich City Asylum, Hellesdon Res Phys and Sup, Di Wm Hailis, FRCS, Hon Con Phys, Sii Fredeiic Bateman, FRCP; Res Asst Med Officei, Di A Sykes Acc—Thoipe, cab faie 4/-, Victoria Station, cab faie 3/6, City Station, faie 3/-, Hellesdon Station, I mile

The Bethel Hospital for the Insane Res Med Sup, J Fielding, M D, Con Phys, Sii Fiederic Bateman, F R C.P Access—Thorpe Station, I mile

NOTTINGHAM.—Borough Asylum, Mapperley Hill Med Sup, E Powell, MRCS

Notes County Asylum, Snenton Res Med Sup., Di A Aplin. Access—Mid and Gt Noith Station, about 15 minutes' walk

The Coppice Res Med Sup, W B Tate, M D Access-Mid. and Gt North Station, 21/2 miles

OMAGH.—Instruct Asylum Res Med Sup, Geo E Carre, MB Access—Omagh Station, 2 miles

**OXFORD.**—Oxford County Asylum Res Med Sup, R H H Sankey, M R C S Access—Littlemoie Station, G W R

Warneford Asylum, Oxford 1½ mile (for private patients only), Res Med Sup, J. Bywater Ward, M.D. Access—Oxford Station, 2¼ miles

Further information on page 701

**PERTH.**—District Asylum, Muithly Med Sup, Geo M Robertson, MB, FRCP, Edin

James Murray's Royal Asylum (for private patients only), Perth Access—Perth, under 2 miles

PLYMOUTH.—Plympton House, Plympton, S Devon Res Med Sup, Charles Aldridge, M D Access—Plympton, 1 mile, Mills, 2 miles

Further information on page 703

**PORTSMOUTH.**—Borough Asylum, Res Med Sup, W C Bland, M R C S Access—Fratton Station, 2 miles

PRESTWICH (near Manchester).—County Asylum Res Med Sup, Henry R Ley, MRCS

RAINHILL (near Prescot).—County Asylum: Res Med Sup, J Wiglesworth, M D Access—St Helen's, 2 miles, Liverpool, 10 miles

ROTHERHAM (Yorkshire).—The Grange, near Rotherham, 5 miles from Sheffield (for ladies) Res Med Prop, C. Clapham, M.D. Access—Giange Lane Station, ¼ mile

**SALISBURY** —Fisherton House Asylum Med Sup, William Corbin Finch, M D Access—Salisbury Stat, 5 minutes' walk

Laverstock House Prop, J Haynes, Med Sup, Hy J Manning, MRCS.

SHREWSBURY —Salop and Montgomery Countres Lunatu Aylum Res Med Sup, Arthur Strange, M D Access—Shrewsbury Station, 2½ miles

SLIGO.—District Asylum Res Med Sup, Di Joseph Petit Access—Midland. Great Western and Sligo, Leitim and Northern Counties Railways, Sligo Station, 1½ miles

STAFFORD —County Lunatic Asylum. Res. Med. Sup., Di. J. W. Stilling Christie. Access—Stafford Station, about 1 mile.

Institution for the Insane Coton Hill, Med Sup., Di R W Hewson

STARCROSS (near Exeter).— Western Counties Idoot Asylum Res Sup, William Locke Access—Staircross Station, 5 minutes' walk

STIRLING.—District Asylum Med Sup, Di J MacPheison

ST. LEONARDS-ON-SEA.—Ashbook Hall, Hollington (for ladies) Res Prop, Mrs Letitia A Hitch Access—Station, Warrior Square, St Leonards-on-Sea, half-an-hour's walk

STONE (near Aylesbury).—Bucks County Asylum Res Med Sup, J Humphry, MRCS Access—Stone, 3 miles from Aylesbury

SUTTON (Surrey).—Chalk Pit House Piop, F D Atkins, M R C S

TAMWORTH (Staffs.).—The Moat House (for ladies) Res Prop, E Hollins, MA Med Attendants, J Holmes Joy, MD, and SH Hallison, LRCP, Lond

TICEHURST (Sussex).—Asylum Props, H F H Newington, MRCP, and AS L Newington, MB

TONBRIDGE.—Redlands Res Phys, W. M Haimer, F.R.C.P. Access—Tonbildge Station, 2½ miles

VIRGINIA WATER.—Holloway Sanatorium, Hospital for the Insane St. Ann's Heath, Virginia Water. Res. Med. Sup., Sutherland Rees Philipps, M.D. Asst. Med. Officers, A. N. Little, M.B., W. D. Moore, M.D., Emily L. Dove, M.B. Chaplain, Rev. T. W. Armstrong, M.A. Treas. John Ashby, Esq., Staines. Access—Virginia Water Station, 5 minutes' walk. Seaside Branch, Hove. Villa, Dyke Road, Brighton. Med. Off., E. Noble Edwards, M.R.C.S.

WADSLEY (near Sheffield).—West Riding of Yorkshire Asylum Res Med Sup, W S Kay, M D Access—Wadley Bridge, 2 miles

WAKEFIELD.—West Riding Asylum Res Med Sup and Director, W Bevan Lewis, LRCP, Lond Access—Kirkgate and Westgate Stat, I mile

WALLINGFORD (Berks).—Berks County Asylum Res Med Sup, J. W A Murdoch, M B. Access—Cholsey, I mile

WARWICK.—Midland Countres Idoot Asylum Knowle Res Sup and Sec, W G Blatch, Med Officer, R H. Foster, MRCS Access—Knowle Station, ½ mile

**WATERFORD** — District Asylum Res Med Sup, Dr R Atkins Access—Waterford and Kilkenny Railway Station, about 2 miles

St Patrick's Institution, Belmont Park Sup, Br W J. Beckel Med Sup, Dr W R Connolly.

WELLS.—Somerset and Bath Asylum, Wells, Somerset Res Med Sup, A Law Wade, M D Access—Wells, 2 miles, Masbury, 2½ miles

WHITCHURCH (Salop).—St Mary's House (ladies only) Med Sup, S T Gwynn, M D Access—Whitchurch Station, 1½ miles.

WHITEFIELD (near Manchester).—Overdale Res Med Sup, James Holmes, M.D. Access—Prestwich and Whitefield Stations, 1½ miles each, Molyneux Brow, ¼ mile

WHITTINGHAM (near Preston).—County Asylum Res Med Sup, Di Fiank Perceval Access—Giimsargh Station, 134 miles, Whittingham Station, 3 minutes

WINCHELSEA (Sussex).—Periteau House, near Hastings (ladies 5 only), Propietiess, Mis R V Skinner Res Med Sup, E W Skinner, M D Access—Winchelsea Station, I mile

WOKING.—Surrey County Asylum, Brookwood Res Med Sup, Dr J E Baiton Access—Brookwood Station, 11/2 miles

WORCESTER.—County and City Lunatri Asylum, Powick Res Med Sup, E Mannott Cooke, M B Access—Worcester Station, 4½ miles

YORK.—Lawrence House (for 8 males and 14 females) Prop and Med Sup, G I Swanson, M D Access—York

North Riding of Yorkshire Asylum Res Med. Sup, J Tiegelles Hingston Access—York, 2 miles.

The Friends' Retreat Res Med Sup, Bedford Pierce, M D, M R C P, Lond

York Lunatic Asylum, Bootham Res Med Sup, C K Hitchcock, M D, M A., Cantab Access—York, I mile

# TRAINING INSTITUTIONS.

\*\*CHILGOMPTON (near Bath).—Downside Lodge Med Sup, Alex. Waugh, M.D. Access—Chilcompton Station, about 14 mile

Further information on page 706

**DUNDEE.**—Baldovan Asylum For the Training and Education of Imbecile Children Matron, Miss Butter Vis Phys, Dr. Greig. Access—Baldovan, I mile

KINGSTON-ON-THAMES (Surrey).—II'mchester House, Kingston Hill Training Institution for backward and feeble-minded children Res Med Supt, Di Fletcher Beach Access—Norbiton Station, South Western Railway, 15 minutes' walk

Further information on page 706

KINGSTON-ON-THAMES.—Normansfield Framing Institution (for backward and teeble-minded children) Med Sup, Dr Langdon Down For 100 male and 60 female patients of the upper class Access—Hampton Wick Station, 5 minutes walk

LANGASTER.—Royal Albert Asylum (for idiots and imbeciles of the Northern counties For 600 patients) Principal and Sec., James Diggens Res Med Sup., Telford Smith, M.A., M.D. Admission by election, or at various rates of payment Access—Lancaster Station, I mile Further information on page 707

Brunton House, a Home for special Private Pupils under training at the Royal Albert Asylum Private Pupils received from all parts of the country Principal and Sec., James Diggens Access as above

Further information on page 707

LONDON (Upper Norwood).—Grosvenor, 84, Auckland Road Prop, Miss Arkell Further information on page 700

MAIDSTONE (Kent).—Bearsted House School and Home for the Feeble-minded Res Sup and Prop, G T A Vaid Access—Bearsted Station (Chatham and Dover Railway), 5 minutes' walk

Further information on page 705

RICHMOND (Surrey). —Ancaster House Richmond Hill For mentally-feeble children (not idiots) Res Med Sup, G E Shuttleworth, BA, MD Acc—Richmond Stat, L & SWR, Metropolitan, District and North London Railway, I mile

Further information on page 707

# Homes for Inebriates.

Homes marked thus (") are licensed under the Inebriates Act.

The patient must sign a Form expressing a wish to enter the retreat, before two magistrates. This can be done at the private residence of the patient, or at the retreat. Two friends must also sign a declaration that they consider the patient an "Inebiate" within the meaning of the Acts

BRISTOL.—Dunmury, Sneyd Park, near Clifton. Res Med Prop, Dr James Stewart, BA, FRCP. Ed, and Mrs Stewart Access—Bristol or Clifton Down Station, 14 mile from the latter.

Further information on page 710

Kingswood Park Res. Med Sup, Di R W Bilmacombe Access—Mangotsfield 2 miles, Bilstol 4 miles, Bath 8 miles

**CROYDON.**—St Raphael s, Woodside Apply Rev A Tooth Access—Woodside Station, Croydon

EARL'S COLNE (Essex).—Buxton House (for ladies) Prop, Miss Pudney, Med Attendant, J Tayloi, MRCS Access—Colne, 2 miles, Chappel, 3 miles

FOLKESTONE.— Capel Lodge (Near Folkestone) Res Prop, E Norton, MD Access—Folkestone Junction, 2 miles

Further information on page 664

LEICESTER.—Tower House (for ladies) Prop, Mis Theobald, Med Attendant, Di Clarke Access—Leicester Station, 1½ miles

MANCHESTER (near) .- The Grove, Fallowfield

MIDDLESEX.—\* High Shot House, Twickenham Res Med Sup, F H Bromhead, BA, MB Camb, MRC.S Eng, LRCP Lond Access—St Margaret's Station from Waterloo, 300 yards

Further information on page 704

RICKMANSWORTH (Herts).—\*Dalrymple Home (for 20 male patients) Res Med Sup, R Welsh Branthwaite, L R C P Access—Rickmansworth Station, Metropolitan Rly, ½ mile, L & N W Rly, I mile.

Further information on page 702

STONEHAYEN (N.B.).—Elsick House Piop, D Forbes

SYDENHAM.—Women's Temberance Home Hon Sec, Miss Bagstei Med Sup, Dr Gaidner. Access—Sydenham, 3 minutes

WALSALL.— Old Park Hall Retreat Birmingham, 6 miles Res Med Sup, Fredk John Gray Access—Walsall Station, 13/4 mile

WESTGATE-ON-SEA.—: Tower House Retreat (for ladies and gentlemen) Principal and Licensee, A F Street, MA, MD

# Hydropathic Establishments of Great Britain.

We wish to make this list complete, but it is impossible when some Proprietors do not return out letter of enquiry which is stamped to refly. This will account for some omissions in the present edition

ABERDEEN.—Decorde Hydropathic Establishment, Heathcot, near Aberdeen —Res Med Sup, Alexander Stewart, M.D., LL.D., F.A.S. Access—Rail to Aberdeen, thence by cab or omnibus. Hydropathic conveyance meets any train when sent for, distance 5 miles

Further information on page 709

BASLOW (near Chesterfield). Baslow Hydropathic Establishment, near Chatsworth Park, Derbyshire Res Med Sup, E. M Wrench, FRCS. Access—Rowsley Station, 4½ miles by omnibus

**BATH.**—West of England Hydropathic Establishment, Limples Stoke, near Bath Res Phys, C J Whitby, M D Access—Limpley Stoke Station

**BEN RHYDDING.**—Ben Rhydding Near Leeds, Biadfold, of Hairogate Phys, Thos Johnstone, M D, M R C P. Access—Ben Rhydding Station, a few hundled yards

BISHOPS-TEIGNTON (near Teignmouth).—The South Devon Health Resort Prop, C F Carpenter Med Sup, F Cecil H Piggott, M D Access—Teignmouth Station, 2½ miles

BORTH (Cardiganshire).—Hydropathic Establishment. Med Sup, J Harden Jones, MRCS

BOURNEMOUTH (Hampshire).—Bournemouth Hydropathu Establishment Res Prop, Di Watson Access—Bournemouth, East Station, 1½ mile, West Station, ½ mile

Southcliffe Res Piop, E. P Philpots, M D

Further information on page 709

BRIDGE OF ALLAN.—Bridge of Allan Hydropathu Co Manager, J. M'Kay Access—Bridge of Allan Station, ½ mile

BRISTOL.—The Bristol Hydropathic Establishment (formerly Baitholomew's Turkish Baths), College Green Res Phys, W J Spoor, MB, MRCS

BUTE.—Kyles of Bute Hydropathic, Port Bannantyne, Buteshire Man, A Menzies, Med Sup, Dr A J Hall Access—Clyde Steamers call daily

BUXTON—Burton House Hydropathu, adjoins "The Peak Hydro" Cons Phys, S. Hyde, M.D. Distance from Station, 4 minutes

Buston Hydropathic and Winter Residence Piop, Mi H Lomas. Access—Buston Station, 4 minutes' walk

The Peak Hydro-Thermal Establishment and Mineral Water Baths Cons Phys, S Hyde, M D 4 minutes from Station

COLWYN BAY (North Wales).—Colwyn Bay Hydropathic and Winter Residence Med Sup, Dr W M V Williams Access—Colwyn Bay Station, 7 minutes' walk

CORK.—St Ann's Hill Hydropathic Res Phys, M Altdoifei, M D Access—Blarney Station, 2½ miles distant, Muskeiry Light Railway from Cork, Station on grounds

Further information on page 711.

GRIEFF.—Strathearn House (17 miles from Peith). Res Med Sups, Thos H Meikle, MD, JP, and T Goidon Meikle, MB, CM Access—Crieff Station, I mile

**DUNBLANE.**—Dunblane Hydropathic, Peithshie Res Phys Access—Dunblane Station Further information on page 708.

EDINBURGH.—Hydropathic James Bell, Man Director. Access—Merchiston Station, 1 mile, Waverley Station, 3 miles.

Folkestone Bathing Establishment Co., Limited Access—Shorn-cliff, Radnor Park, and Junction Stations

FORRES.—Cluny Hill Hydropathic. Access—Fories Station, I mile, Inverness, 24 miles

GRANGE-OVER-SANDS.—Hazelwood Hydropathic Con Phys, Dr. Lowther Access—Carnforth, London and North Western Railway, and thence by Furness Railway Grange-over-Sands, 1/4 mile

**HARROGATE** (Yorkshire).—The Cairn Hydropathic A E Wynn, Managei, Med Sup, J Gordon Black, M D

The Harrogate Hydropathic Establishment Phys, Geo Tennant, M B

HASTINGS (St. Leonard's).—The Hastings Hydropathic and Spa Access—Hastings Station, I mile

**HEXHAM** (Northumberland).—Tynedule Hydropathic Prop, F. G. Giant, Med Sup, Thos Stainthorpe, M.D. Access—Hexham; Newcastle, 19 miles

ILKLEY (Yorkshire).—Craiglands Hydropathic Props., Dobson Bros Med Sup, Henry Dobson, M D, C M

Ilkley Wells House Hydropathic. Med. Sup, Thos Scott, M D Access—Ilkley Station, ¼ mile

The Spa Hydropathic (Neai Leeds and Biadford) Med Sup., Thos Johnstone, M.D. Access—Ilkley, Yorks and Mid. Rys.

Troutbeck Hydropathic Establishment and Sanatorium Res Med Sup, Henry Dobson, M.D., C.M. Props, Dobson Bros

KILMALCOLM (Renfrewshire) — Hydropathic Establishment Manageress, Miss G Thomson Access—Greenock, 7 miles, thence by steamer Kilmalcolm, I mile

LLANDUDNO.—Hydropathic and Winter Residence. Res Med Sup, H Thomas, M D., F R M S Access—Llandudno Station, 5 minutes

The Hydro Med Sup, J. Ciaig, M.D. Access—Llandudno Station, 2 minutes

MALYERN.—Dr Fergusson's late Dr Rayner's Hydropathic. Res Prop., Di J C Feigusson Access—Great Malvern Station, ½ mile Further information on page 711

Wyche-side Hydropathic. Res Phys., Di Giindrod Access-Malvein Wells G. W. Station, ½ mile

MATLOCK.—Darley Dale Hydropathic Piop, Wm Atkin; Med Sup, Dr W Moson Access—Matlock Bridge Station, 2 miles, Darley Dale, ½ mile

Eim Tree House Prop, Wm Bramald Med Sup, Dr Hunter. Access—Matlock Bridge Station, ½ mile

Roseberry House, Matlock Bank, Matlock Budge. Med. Sup, Dr. Moxon Prop, Mrs J L Dean Access—Near Matlock Bridge Station Smedley's Hydropathic Establishment, Matlock Bridge Phys, Wm. B Hunter, M D, and W. C. Sharpe, M B, with a House Phys. Access—Matlock Bridge Station, ½ mile, Omnibus

Further information on page 711.

MELROSE.—Waverley Hydropathic. Con. Phys, Dr. Wade. Access—Melrose Station, I mile

MOFFAT.—The Moffat Hydropathic Piop, J Farquhaison PEEBLES.—Peebles Hydropathic. Access—Peebles Station, I mile PITLOCHRY.—Atholl Hydropathic Prop, W Macdonald Access—Pitlochry Station, I mile.

RHYL.—North Wales Hydropathic

ROTHESAY - Glenburn Hydropathic Res Prop, Dr Philp

SCARBOROUGH—Hydropathic Establishment, West Bank Piop, R B. D. Wells Med. Attendant, Di Megginson

Further information on page 709.

SHANDON.—Shandon Hydropathic Med Sup, Suig-Majoi R D Reid, M D Access—Noi. Brit Railway & Steamer to Shandon Pier

SOUTHPORT.—"Sunnyside" Hydropathic Piop, J Boocock Phys, Di F A Ernest Barnaido Access—Southpoit Station, ½ mile Further information on page 710.

Hydropathic House Piops, Lee & Haidman

The Southport Limes Hydropathic (51, Bath Street). Phys and Suig, Dr A B Kenwoithy Access—Chapel Street, Lord Street of Central Stations 1/4 mile

The "Mornington." Piop, James Cowin

TUNBRIDGE WELLS.—The Spa Phys, Di G L Paidington Access—Tunbridge Wells Station, about ½ mile

ULYERSTON AND BARROW-IN-FURNESS.—Conshead Priory Hydropathic Res. Med Sup, C E Stechan, M B Access—Cainforth or Hellifield Stations

**WATFORD.**—The Hall, Bushey Res Phys, R J Banning, M D, J P Access—Bushey Station, I mile

**WEMYSS BAY.**—Wemyss Bay Hydropathic Med Sup, Ronald Curre, M.D., C.M. Access—Wemyss Bay Station, via Glasgow, ½ mile

WINDERMERE.—Windermere Hydropathic, 9 miles from Kendal. Access—Windermere Station (L & N W R.) about 1 mile Furness Rly (Bowness Landing), ¼ mile Pier on the Lake, about 300 yards

# Private Homes for Invalids.

BOURNEMOUTH.—Overton Hall, West Cliff Res Piop, Dr A H Watson.

JEDBURGH.—Abbey Green Res Prop, Wm Blair, M D Access— N B Rly, Jedbuigh Further information on page 698.

LLANDUDNO.—Ormeside Access—Llandudno Station, 3/ mile

SOUTHPORT.—8, Manchester Road (for ladies) Prop, Mrs Krause Further information on page 688

# Books of the Year.

A LIST OF THE PRINCIPAL MEDICAL WORKS AND NEW EDITIONS
PUBLISHED DURING 1894

### AMBULANCE AND NURSING.

Ambulance Manual of By J S Riddell Numerous Illusts and Fullpage Plates Cr 810 pp 222 Griffin Ambulance Lectures First Aids to the Injured 4/-By S Osborn 3rd ed, with Illusts, 12mo, pp 146 Lea is 2/-Care of the Sick at Home and in the Hospital A Handbook for Families and Nurses By T Billroth 3rd ed Cr 8vo, pp 326 (25) 6/-First Aids to the Injured and Management of the Sick By E | Lawless Cr. 8vo, pp 228 Illusts Pentland 36 Manual of Nursing, Medical and Surgical By L Humphry Illusts 11th ed Cr 8vo, pp 254 Griffin 3/6 Massage Nurses Guide to By S Hyde 3rd ed Roy 16mo, pp 63, limp (28) Medical Nursing Notes of Lectures Given to the Probationers at the
London Hospital By J Anderson Edited by Ethel F Lamport With an Introductory Biographical Notice by Sir Andrew Clark 8vo, pp. 192 Lewis 2/6 Nursing Old Age By Mary Truman and Edith Sykes 810, pp 146 Roxburghe Press The Nurse's Dictionary of Medical Terms and Nursing Treatment By Honnor Morten 2nd ed 32mo, pp 140 Scientific Press

### ANATOMY AND PHYSIOLOGY.

Anatomical Model (Phillips') A Pictorial Representation of the Human Frame and its Organs With Descriptive Text by Dr Schmidt English ed by William J Furneaux Illusts Roy 8vo (88) Net 2/-Anatomy of the Nasal Cavity, and its Accessory Sinuses An Atlas for Practitioners and Students By A Onodi Trans and Ed by St Clair Thomson Plates Roy 8vo Lewis Net 6/-Dissections By C G Brodie Illusts Part 3, Head, Neck, and Thorax Imp 8vo, sd Whittaker 10/-Elements of Anatomy (Quain's) Edit by Schafer and Thane 3 vols Vol 3, Pt 3 Organs of the Senses By Professor Schafer 10th ed Roy 8vo (13) 9/-Handbook of Physiology Being a Popular Description of the Human Body, its Structure and Functions in Health and Disease Cr 8vo Paper Covers New ed (57) 1/-Human Physiology By J Thornton With 268 Illusts, some coloured (Advanced Science Manuals) Cr, 8vo, pp 436 (15) 6/-Kirke's Handbook of Physiology Ed by W Morrant Baker and V D Harris With 500 Illusts Post 8vo (31) 14/-

Physiology. Part 3 (Catechism Series) Blood Respiration Digestion, including Mouth, Stomach, Pacre as and Liver Eye, Ear, and Cranial Nerves Part 8 Spinal Cord, Brain, tion, Physiological Chemistry Livingstone Physiology of the Carbohydrates By F W Pavy 8vo	Part 7 Reproduc-
Physiology of the Carbohydrates By F W Pavy 8vo (5)	, pp 280 10'6
Physiology of Death from Traumatic Fever A Study in Surgery. By J D Malcolm 8vo, pp 129 (5)	Abdominal
Practical Anatomy Manual of By D J Cunningham Vol 2 Thorax, Head and Neck Illusts Cr 8vo, pp 646	In 2 vols Pentland
Practical Morbid Anatomy By H D Rolleston and A A	Each, 12/6 Kanthack
12mo Lewis The Frog An Introduction to Anatomy, Histology, and E	6/-
By the late A Milnes Marshall 5th ed Revised and Illust	Cr 8vo
(23)	• 4/-

### CHEMISTRY.

Blood · The Chemistry of the, and other Scientific Papers By the late S C Wooldridge Arranged by Victor Horsley and Ernest Starling Demy 8vo (9)

Qualitative Analysis for use in instruction in Clinical Laboratories By L Medicus Trans by J Marshall 8vo (42)

16/
16/
17/6

# CHILDREN (Diseases of).

Artificial Feeding of Infants On the Principles and Exact Conditions to be observed in the The Properties of Artificial Foods, and the Diseases which Arise from Faults of Diet in Early Life Cheadle 3rd ed Revised and Enlarged Cr 8vo (23) 5/-Diseases of Children By James Frederick Goodhart 5th ed I2mo. PP 734 (5)10/6 Growing Children and Awkward Walking. By T W Nunn Cr 8vo, pp 108 (9)

Prescribing and Treatment in the Diseases of Infants and Children 2/-By P E Muskett 3rd ed, Revised, Enlarged and Re-arranged 18mo Pentland 6/6

### DENTISTRY.

Dental Anatomy Manual of Human and Comparative
Tomes With 235 Illusts 4th ed Cr 8vo, pp 567 (5)
Dentists' Register for 1894 (69)
Mechanical Dentistry By J Richardson New ed By G W
Warren Illusts 8vo, pp 662 (5)
The Dental Surgeon's Daily Diary and Appointment Book
Cloth, Gilt Lettered (77)

By C S

12/6

21/
Med 8vo,
6/-

# EAR, THROAT AND NOSE.

Deaf-Mutism By Holger Mygind Cr 8vo, pp 300 (46) 8/Diphtheria and its Successful Treatment Practical Treatise on By R Martin Cr 8vo (3) 1/6
Discases of the Ear By M Hovell 8vo (5) . . . . 18/-

Diseases of the Ear Manual of By George P. Field. 5th ed Illust with coloured Plates and Woodcuts 8vo, pp 420 (3) Diseases of the Ear. Practitioner's Handbook of By H Macnaughton-Jones and W R H Stewart 5th ed Cr 8vo, pp 404 (3)
Diseases of Nose and Pharynx Handbook of By J B Ball and. ed With 49 Illusts Cr 8vo, pp 368 (3) 7/6 W Diseases of the Throat Clinical Manual for the Study of Net 6/-Downie Cr 8vo, pp 280 (1) Diseases of the Upper Respiratory Tract The Nose, Pharynx and Laryny By P Watson Williams With Frontispiece, 5 Coloured Plates, and 120 Illustrations 8vo, pp 260 Wright (Bristol) Nose and Throat Diseases of the By J D Havilland Hall With 2 Coloured Plates and 59 Illusts Cr 8vo, pp 532 Lewis Pharmacopæia of the Hospital for Diseases of the Throat (Golden Square) Edit by F G Harvey 5th ed Fcap 8vo, pp 112 (5)2,6 Post Nasal Growths By C A Paiker 8vo, pp 104 Lewis4/6 Stammering Its Nature and Treatment duction in Speaking By Emil Behnke With Appendix on Voice Pro-4th and Enlarged ed 32mo, (8)pp 31 I/-Throat, Nose and Ear. Diseases of A Clinical Manual for Students and Practitioners By P McBride 2nd ed, Revised and Enlarged 8vo pp 698, with Coloured Illustrations Pentland EYE. A Handbook of the Diseases of the Eye and their Treatment H R Swanzy 5th ed Illust with Wood Engravings, Coloured Plates, Colour Texts, etc Sm 8vo Lewis 10/6 Diseases of the Eye A Text-Book of By H D Noves and and Revised ed Roy Evo Lewis Net 28/-Diseases of the Eye Diagnosis, Differential Diagnosis, and Treatment of By A E Adams 12mo, cloth (39) 5/-

Instruction and Amusements of the Blind Essay on the By Dr Guillie With Engravings (Reprint of 1819 ed) 8vo, pp 165 5/-Nursing in Eye Diseases Notes on By C S Jeaffreson Cr 8vo pp 98 Wright (Bristol) On Blinding of the Retina by Direct Sunlight. A Study in Prognosis, Based Chiefly upon Accidents During the Observation of Solar Eclipses By G Mackay 8vo (5) Ophthalmoscope The A Manual for Students By Gustavus Hartridge With 67 Illusts and 4 Plates 2nd ed Cr 8vo, pp 164 Physical Defects, including Vision, which Disqualify for the Government Services By N C Machamara 8vo, pp 31 Refraction of the Eye A Manual for Students By G Hartridge With 98 Illusts 7th ed Cr 8vo, pp 274 (5) Refraction of the Eye Its Diagnosis, and the Correction of its Errors By A S Morton 5th ed Cr 8vo, pp 80 Lewis 3/6 Royal London Ophthalmic Hospital Reports Edit by R Marcus Gunn Vol 13 Pt 4 8vo (5) 5/- Text Book of Ophthalmology. By W F Morris and C A Oliver Illusts with 5 Coloured Plates and 357 Woodcuts Roy 8vo, pp 638

Pentland

The Blind as Seen through Blind Eyes By M De la Sizeranne Authorised Translation by F P Lewis Cr 8vo (39) . Net 5/1

# GOUT AND RHEUMATISM.

Gout and Certain Allied Diseases Notes and Conjectures on the Rôle of the Leucocyte in their Causation By M Granville Cr 8vo (3)

Gout and its Relation to Diseases of the Liver and Kidneys By R Roose 7th ed Cr 8vo pp 242 Lewis

Uric Acid Diathesis, Gout, Sand, and Gravel By F Levison Trans from the German and Edit by Lindley Scott Cr 8vo, pp 146 (10) . . . . . . . . . . . . 3/6

# HEALTH RESORTS AND HYGIENE.

Aids to the Mathematics of Hygiene By R B Ferguson Paper, 2/-, Cloth, 2/6 pp 90 (3)  $Paper, 2|-, Cl_0$ Bad Air and Bad Health By H A Herbert and H Wager (2) Sewed, 1/-Cloth 1/6 Dwelling Houses Their Sanitary Construction and Arrangements W H Corfield With Illusts 3rd ed Cr 8vo, pp 128 Lewis Bv 3/6 Food and Drink Rationally Discussed By T Dutton Cr 8vo, pp 2/-Health and Condition in the Active and the Sedentary By N E Yorke-Davies Cr 8vo, pp 266 (25) Health Resorts of Europe A Medical Guide to the Mineral Springs. Climatic. Mountain and Seaside Health Resorts, Milk, Whey, Grape, Earth, Mud, Sand and Air Cures of Europe By Thomas Linn ed Cr 8vo, pp 332 Wight (Bristol) 2/6 How to Regain Health and Live a Hundred Years By One Who Did it (Lewis Cornaro) Trans from the Italian 3rd ed 12mo, pp 10-38 I/-Hygiene By I Lane Notter With 93 Illusts Cr 8vo, pp 384 (13)Hygiene and Public Health Treatise on By T Stevenson and S F Murphy 3 vols Vol 3 Sanitary Law Roy 8vo, pp 460 (5) 20/-Indian Manual of Hygiene Being King's Madras Manual of Hygiene By A E Grant Vol I 8vo Lenrs Net 10/6 Nature's Hygiene A Systematic Manual of Natural Hygiene Bv C T Kingzett 4th ed 8vo, pp 510 (3) 10/-On Preservation of Health in India By Sir J Fayrer 18mo, pp 50 (20) 1/-Practical Hygiene Methods of By Prof K B Lehmann Trans. by W Crookes Illusts 2 vols. Demy 8vo. (9) 31/6 Primer of Hygiene By E S Reynolds With 50 Illusts 18mo, pp (20) 1/-Sanitation and Health A Lecture delivered to the Troops at Rankhet. India By R C Hart 8vo, sd (56) The Island of Madeira The Flower of the Ocean By C A Gordon (3) 2/6

# LUNGS AND HEART.

Aero-Therapeutics or, The Treatment of Lung Diseases by Climate Being the Lumleian Lectures for 1893 By C T Williams 8vo (20) Net 6/-Alpine Climates for Consumption. By H J Hardwicke 12mo (5) 2/6 Asthma and Chronic Bronchitis A New Edition of "Notes on Asthma and Bronchial Asthma ' By J C Thorougood Cr 8vo, pp 130 (3)4/-Diseases of the Heart By W B Thorne Cr 8vo, pp 24 1/-Dyspepsia of Phthisis Its Varieties and Treatment Including a Description of Certain Forms of Dyspepsia Associated with the Tubercular Diathesis By W S Fenwick 8vo, pp 206 Lewis Fibroid Diseases of the Lung, Including Fibroid Phthisis By Sir A Clark and others 8vo Guffin Net 21/-Heart Congenital Affections of the By G Carpenter Cr 8vo, 104 pp 5 Illusts (77)3/6 Heart-Studies Chiefly Clinical 1, The Pulse Sensations A Study in Tactical Sphygmology By W Ewart (3) 15/-Pulse-Gauging A Clinical Study of Radial Measurement and Pulse-Pressure By George Oliver Fcap 8vo Leaus 3/6 The Senile Heart Its Symptoms, Sequelæ and Treatment By George William Balfour Illust Cr 8vo, pp 6—to 300 (87)

# MATERIA MEDICA, &c.

Aids to Forensic Medicine and Toxicology By W Muriell New ed, Revised 12mo, pp 114 (3) Paper, 2/-, Cloth, 2/6 "B P C"-Unofficial Formulary, 1894 Prepared by the Formulary Committee of the British Pharmaceutical Conference 8vo, pp 32 terleaved (5) Coca and Cocaine Their History, Medical and Economic Uses, and Medicinal Preparations By W Martinders 3rd ed 12mo Lewis 2/-Cooling Regimen in Fever By W B Hunter 12mo, pp 36 (1) 4d Dictionary of Treatment or Therapeutic Index, Including Medical and Surgical Therapeutics By W Whitla New ed 8vo, pp 906 (14) 17/6 Examination Questions in Practice of Medicine, with their Answers Part 1, General Diseases, A, Constitutional Diseases Adapted for those who are preparing themselves for the Final Examination, by "Utile Quod Facias" Part 2, Skin Diseases pp 68 E & S Livingstone (Edinburgh) Each, Net 1/-Guy's Hospital Reports Edit by W Hale White and W H A Vol 50 (being Vol 35, 3rd ser) With General Index pp 738 (5) Index of Medicine A Manual for the Use of Senior Students and others By Seymour Taylor Cr 8vo, pp 788 (23) Laun Grammar of Pharmacy By J Ince 6th ed Cr 8vo, pp 300 (3)Materia Medica Part 5 (Catechism Series) 12mo, pp 64 Livingstone Materia Medica, Pharmacology and Therapeutics Inorganic Substances By C D F Phillips 2nd ed 8vo, pp 898 (5)

Materia Medica and Therapeutics Practical Treatise on B<sub>v</sub> R Bartholow 8th ed., Revised and Enlarged 8vo 21/-Materia Medica An Aid to By Robert H M Dawbarn Revised and Enlarged by Woolsey Hopkins 16mo (39) Net 5/-Medical Annual and Practitioner's Index Vol for 1894. Wright (Bristol) 7/6 The Theory and Practice of By F T Roberts Medicine oth ed Medium 8vo, with Illusts Lewis 21/-Modern Materia Medica For Medical Men, Pharmacists and Students. By H Helbing 4th ed Sm 8vo Lewis Net 81-Outlines of Medical Treatment. By S & W S Fenwick 4th ed Enlarged and Revised 8vo, pp 510 IO/-Pharmacy The Practice of By I P Remington 3rd ed 8vo 21/-(42)Practice of Medicine Essentials of By H Morris Hirsch-Cr 8vo Net 6/-By M Charteris 7th ed 12mo, pp 710 Practice of Medicine IO/-Quain's Dictionary of Medicine Including General Pathology, General Therapeutics, Hygiene, and the Diseases of Women and Children various writers Ed by Sir R Quain, Bart Newed Revised throughout and enlarged With 181 Illust 2 vols Medium 8vo, pp 2,518 Net 40/-(13)Retrospect of Medicine By J Braithwaite Vol 108, July-December, 1893, Vol 109, January-June, 1894 12mo, pp 420 (1) each 6/6 Students Handbook of Medicine and Therapeutics By Alexander Wheeler Illusts Cr 8vo, pp 5-396 Livingstone The National Dispensatory Containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicine By A Stille and I M 5th ed Enlarged and Revised With 320 Illusts Marsch (5) 35/-Theory and Practice of Medicine By F T Roberts. 9th ed 8vo, pp 1,170 Lewis 21/-Therapeutics Its Principles and Piactice By H C Wood oth ed of a "Treatise of Therapeutics" Thoroughly Revised Roy 8vo 16/-Transactions of the Medico-Chirurgical Society of Edinburgh, Vol 13 New Series Session 1893-'94 8vo, pp 302 (1) Net 8/6 Transactions of the Royal Academy of Medicine In Ireland. Vol II 8vo, pp 546 Fannın Year-Book of Pharmacy With the Transactions of the British Pharmaceutical Conference at the 13th Annual Meeting 8vo, pp 516 (5) 10/-Year-Book of Treatment for 1894 Cr 8vo (10)

### MIDWIFERY AND DISEASES OF WOMEN.

Antiseptics in Midwifery By R Boxall 8vo Lewis . r/Cancer of the Uterus Lectures on By F Jessett 8vo (3) 3/6
Difficult Labour A Guide to its Management For Students and
Practitioners By G E Herman With 162 Illusts Cr 8vo, pp 450
(10) 12/6
Diseases of Women and their Treatment By H Macnaughton-Jones
6th ed Illusts (3)

Diseases of Women By J J Reynolds 4th ed, Enlarged Notes on and Revised 12mo, pp 184 (5) 810 Diseases of Women Text-book of the By H | Garrigues 21/-Huschfeld Diseases of Women. The Evolution of the By W Balls-Headley With numerous Illusts Demy Sco (23) Dr William Smellie and His Contemporaries A Contribution to the History of Midwifery in the Eighteenth Contury By J Glaister Handbook of Obstetric Nursing By F W N Haultain and I H Ferguson 2nd ed, Revised and Enlarged With 33 Wood Engravings C1 8x0, pp 250 Pentland Introduction to Midwifery Handbook to Medical Students and Midwives By 1 Donald Illusts Cr 8vo, pp 186 Griffin Manual of Midwifery By A L Galabin Illusts ard cd C1 810. Modern Gynecology A Treatise on Diseases of Women Ħ Bushong Illust 8vo Hirschfeld 716 Obstetric Nursing, Manual of By Marian Humfrey Cr 8vo, pp 282 (25) Outlines of Gynæcological Diagnosis For the Use of Students and Practitioners in Making Examinations By N T Brewis With 20 Cr 8vo, pp 80 Clay (Edinburgh) (1) Net 2/6 Practical Handbook of Midwifery By F W N Haultain Illust C1 8vo, pp 248 Scientific Press Short Guide to the Examination of Lying-in Women Crede and Prof Leopold With 5 Woodcuts Trans by W H Wilson Cr 8vo, limp Hirschfeld 1/6 The Common Forms of Dyspepsia in Women Ingleby Lectures, 1894 By Robert Saundby 800, pp 34 (1)
The Wife's Health By G S Bigg New and Revised cd Cr 8vo. pp 120 (72) Transactions of the Edinburgh Obstetrical Society Vol 18, Session 1892-'93, Vol 19, Session 1893-'94 8vo (1) Each 8/6 Transactions of the Obstetrical Society o' London Vol 35, for 1893 8vo (13)Use of Antiseptics in Midwifery Their Value and Practical Application By R Boxall 8vo, sd Lewis

# MISCELLANEOUS.

Analysis of 12,000 Prescriptions By W Martindale 4to, sd Lewis Net 216 An Introductory Lecture on The Public, the Profession, and Medical Charities By R Boxall With 2 Charts and 6 Tables 800 Lewis Asclep.ad By B W Richardson 2nd Series, 1892 Vol 9 8vo (13)12/6 Auto-Intoxication in Disease, or, Self-Poisoning of the Individual. Lectures on By Ch Bouchard Trans by T Oliver 8vo (46) 10/-British Pharmacopæia Reprinted in 1893 (69) 6/-Chesterfield's (Dr) Letters to his Son on Medicine as a Career Bvı]-Sir W B Dalby Cr 8vo, sd (13) Cholera On the Natural Immunity Against Gumpel 2/6

Clinical Medicine A Manual for the use of Students and Junior Practitioners By J. S. Bury With numerous Illusts and Plate in Colours
8vo, pp 476 Giiffin  Companion to the British Pharmacopæia By P Squire 16th ed Revised by P W Squire and A H Squire 8vo, pp 733 (5)  Craig's Posological Tables New ed Livingstone Net 1/-
Dictionary of Medical Science By R Dunglison 21st ed Revised and Enlarged With the Pionunciation, Accentuation and Derivation of the Terms By Richard J Dunglison Roy 8vo pp 1,182 (5) 30/-
Dictionary of Medicine, Biology and Allied Sciences, &c By G M Gould Illust 4to, hf-bd (3)  Net 40/-
Disease and Race By Jadroo 12mo, pp 116 (18) 2/6 Disorders of Speech By J Wyllie 8vo, pp 490 (1) 18/-
Dispensatory of the United States By Professors Wood, Remington and Saddler 17th ed Revised and largely Re-written Roy 8vo
Edinburgh Hospital Reports Ed by G A Gibson, C W Cathcart,  John Thomson and D Berry Hart Vol 2 Pentland Net 12/6
Essentials of Bacteriology By M V Ball 2nd ed Illusts 8vo
Hirschfeld  Guide to the Public Medical Service Compiled from the Official
Sources By A S Faulkner 8vo Lewis 2/- History of Epidemics in Britain By Charles Creighton Vol 2, From
the Extinction of the Plague to the present time 8vo, pp 12—883  Lewis 20/-
Husband's Forensic Medicine 6th ed Livingstone . Net 10/6 Infectious Diseases Notification and Prevention By L C Parkes
12mo, roan, pp 202 Lewis 4/6
International Clinics A Quarterly of Clinical Lectures on Medicine and Surgery Vols 7—10 Large 8vo Cloth Illusts Pentland
Key to Book of 120 Autograph Prescriptions (Wills') 3rd ed 12mo.
pp 42 (1) 1/6 Medical Diagnosis Practical Treatise on For Students and Physicians
By J H Musser Illust with 162 Woodcuts and 2 Coloured Plates
Roy 8vo, pp 888 Pentland
Medical Register for 1894 8vo (69) 6/- Medical Students' Register for 1894 (69)
Micro-Organisms in Water Their Significance, Identification and Re-
moval Together with an Account of the Bacteriological Methods Involved in their Investigation Specially designed for the use of those
connected with the Sanitary Aspects of Water Supply By P Frankland With 2 Plates and 28 Illusts 8vo, pp 544 (13) Net 16/-
Microscopical Examination of the Human Brain Methods for Pre- paration of the Brain for Museum Purposes By E Goodall Cr 8vo,
pp 186 (3) 5/-
On the Bacteriological Diagnosis of Cholera, Water Filtration and Cholera, and the Cholera in Germany During the Winter 1892-'93 By
Prof Koch Trans by G Duncan 8vo, pp 150 (86) Net 6/- Outlines of Biology By P C Mitchell With 74 Illusts Cr 8vo, pp
300 (33)
Pain in its Neuro-pathological, Diagnostic, Medico-Legal, and Neuro- Therapeutic Relations 8vo (42)

Physical Measurements By Prof Kohlrausch Trans by Waller and Proctor 3rd ed 8vo (5) Pocket Medical Formulary (Saunders's) With an Appendix by W. M. Powell 2nd ed Revised and Enlarged 12mo Hirschfeld Net 6/-Popular Information Concerning Infectious Diseases By H Swoider Cr 8vo pp 80 (14) 2/6 Practical Hydropathy By John Smedley Cr 8vo New ed (57) 2/6Practical Hydropathy Ladies Manual of By Mrs Smedley Cloth Psychology, Descriptive and Explanatory A Treatise on the Phenomena, Laws, and Development of Human Mental Life By G Trumbull Ladd (13) 8to, pp 690 Reports from the Laboratory of the Royal College of Physicians, Edinburgh Edit by J Batty Tuke and Dr Noel Paton. Vol 5 8vo, Net 7/6 (85)PP 254 Sea Sickness By T Dutton Ci 8vo, pp 136 (16) St Bartholomew's Hospital Drawings and Photographs Catalogue of Series 57 Roy 8vo, pp 99 2/6 St Bartholomew's Hospital Reports Vol 29 1893 Demy 8vo (23)Student's Dictionary of Medicine and the Allied Sciences, comprising the Pronunciation, Derivation, and Full Explanation of Medical Terms, together with much Collateral Descriptive Matter, Numerous Tables, etc By A Duane 8vo, pp 658 (13) The Droitwich Brine Baths as Therapeutic Agents in Valious Diseases By W H Tomkins 8vo Lewis The Great Pestilence (AD 1348-9) now Commonly Known as the Black Death By F A Gasquet 8vo, pp 250 (1)
The Human Element in Sex By E Blackwell Net 7/6 Cr 8vo, New ed Cr 8vo, pp Theory of Development and Heredity By H B Orr (20)Net 61-Thus Shalt Thou Live Hints and Advice for the Healthy and the Sick in a Simple and Rational Mode of Life, and a Natural Method of Cure By S Kneipp Trans from the 19th German ed Cr 8vo, pp 386 (55) 61-Visiting List, 1895 (Wright's Improved) requires writing once a month only Limp Leather Wright (Bristol) .

### NERYOUS DISEASES.

Elements of Hypnotism The Induction of Hypnosis, its Phenomena, its Dangers and Value By R H Vincent With 20 Illusts, showing Experiments Cr 8vo, pp 274 (9)
General Index to the Journal of Mental Science By H Rayner Vols 25 to 38 8vo pp 104 (5) 5/-Headache, and other Morbid Cephalic Sensations By H Campbell 8vo 12/6 Lewis Hypnotic Suggestion (Practice of) By G C Kingsbury. Large 8vo. Wright (Bristol) 216 pp Illusions A Psychological Study By James Sully. 4th ed Crown Insanity and Allied Neuroses, Practical and Clinical By George H Savage 12mo, adv (10) 9/- Insanity and its Treatment Lectures on the Treatment, Medical and Legal, of Insane Patients Containing the New Law of Lunacy Fielding Blandford 4th ed pp 508 (40) 10/6 Lunatic Asylums Their Organisation and Management By C Mercier Roy 8vo, pp 308 Griffin Mental Nursing or, Lectures for Asylum Attendants By W Harding With many Illusts 2nd ed, Enlarged and Revised 8vo, pp 138 Scientific Press Nervous Diseases Essentials of By I C Shaw Cr 8vo Hn sch-Net 4/-Neurasthenia and its Treatment by Hypodermic Transfusions (According to the Method of Dr Jules Chéron) By Ralph Brown 1/-On Brain and Nerve Exhaustion (Neurasthenia) and on the Nervous Sequelæ of Influenza By T S Dowse 4th ed 8vo, pp 136 (3) On Chorea and Choreiform Affections By W Ostler 8vo On Common Neuroses or, the Neurotic Element in Disease and its Rational Treatment By J F Goodhart 2nd ed (Harveian Lectures, Cr 8vo Lewis On Failure of Brain Power (Encephalasthenia) Its Nature and Treatment By J Althaus 4th ed Cr 8vo 3/6

Sanders

Researches on the Nervous System of Myxure Glutinosa

With 8 Plates 10/6 4to PATHOLOGY. Appendicitis A Treatise on With Coloured and other Illusts 8vo 10/6 (42) Cancer. Sarcoma and other Morbid Growths Considered in Relation to the Sporozoa Reprinted from the Medical Press and Circular By [ ] 8vo, pp 98 (3) 3/6 Compend of General Pathology and Morbid Anatomy By H Newbery Hall With 91 Illusts Cr 8vo, pp 204 Pentland Diseases of the Breast A Monograph on With Special Reference to Cancer By Roger Williams 580 pp Med 8vo, with 76 Figures (77)Elements of Surgical Pathology By A | Pepper Illusts, with 99 Engravings 4th ed, Re-written and Enlarged 12mo, pp 612 (10) 8/6 Epidemic Roseola By C Dukes 8vo, pp 39 Handbook of Medical Pathology for the use of Students in the Museum of St Bartholomew's Hospital By W P Heringham, A E Garrod and W I Gow Cr 8vo, pp 304 (3) 7/6 Index Pathologicus For the Registration of the Lesions Recorded in Pathological Records or Case Books of Hospitals and Asylums BvJ C Howden Fcap fol, pp 86 (5) 6Ĭ-Inebriety, or Narcomania Its Etiology, Pathology, &c By N Kerry 3rd ed, 8vo Lewis Inflammation The Comparative Pathology of Lectures by Elias Trans by F A Starling and E H Starling With 65 Figures and 3 Coloured Plates. Demy 8vo (9)

International Journal of Microscopy and Natural Science. Edited by A Allen Vol for 1894 Wright (Bristol) . 10/6
Methods of Pathological Histology By C Von Kahlden Trans and
Edit by H Morley Fletcher With an Introduction by G Sims, Wood-
head 8vo, pp 160 (20) 6/-
Myxœdema, Cretinism and the Goitres, with Some of their relations By
E T Blake Illust 8vo, pp 89 Wright (Bristol) 3/6
On Gangrene of the Limbs Following Typhoid Fever By F D
Drewitt 8vo, sd Lewis
Peritonitis The Lettsomian Lectures for 1894 By F Treves Demy
8vo, 160 pp (77) 2/6
Text-Book of Pathology, Systematic and Practical By D J Hamilton
Copiously Illust Vol I 8vo, pp 1,150 (20) Net 21/-
Transactions of the Pathological Society of London Vol 44,
1893 With 7 Plates (3 coloured) and 9 Woodcuts (23) - 20/-
Treatment of Wounds, Ulcers and Abscesses By W W Cheyne
Cr 8vo, pp 198 Pentland 3/6
Ulcers and their Treatment Intended for the Use of Dressers, and as
an Aid for those Preparing for Examinations By W S Crawford
12mo, pp 50 (3)
Vaccination History and Pathology of By E M Crookshank 8vo Lewis Net 20/-
Wounds The Aseptic Treatment of By C Schimmelbusch Preface
by E von Bergmann Trans from the 2nd German Ed by A T Rake
Illusts Cr 8vo Liu's 6/-
· · · · · · · · · · · · · · · · · · ·

# SKIN DISEASES.

Atlas of the Diseases of the Skin, in a Series of Illusts from Original Drawings, with Descriptive Letterpress By H Radcliffe Crocker Fasciculi i—8 Pentland Each, Net 21/-Dermatology Introductory Lectures in Comprising a Course of Fifteen Lectures delivered at the University of Vermont Medical Department during the Session of 1892 and 1893 By Condict W Cutler, Cr 8vo Cloth (39) Diseases of the Skin A Manual for Students and Practitioners W A Jamieson 4th ed, Revised and Enlarged, with Coloured Illustrations 8vo, pp 692 Pentland 21/-Diseases of the Skin An Outline of the Principles and Plactice of Dermatology By M Morris With 8 Chromo-lithographs and 17 Woodcuts 12mo, pp 560 (10) 10/6 Diseases of the Skin Treatise on By T M C Anderson 2nd ed, Revised and Enlarged 8vo, pp 780 Griffin Medicated Baths in the Treatment of Skin Diseases By L Phillips 4/6 On Seborrhæa and its Consequences By J F Payne Demy 8vo, 94 pp Paper Wrappers (77).

### SURGERY.

After-Treatment of Cases of Abdominal Section B<sub>v</sub> C Martin 8vo, pp 48 (1) Net 21-Annals of Surgery Vol 18, July to December, 1893 Roy 8vo (10) 15/-Aseptic Surgical Technique With a Special Reference to Gynecological Operations By R Hunter Cr 8vo Illusts (42) 10/6 Norton Clinical Lectures on Recent Surgery By A T Cr 8vo Essentials of Surgery By E Martin 5th ed Cr 8vo Huschfeld Hernia: Its Palliative and Radical Treatment in Adults, Children and Infants By T H Manley 8vo (46) II/-Injuries and Diseases of the Jaws. By C Heath 4th ed Edit by Henry Percy Dean Illusts 8vo, pp 428 (5) 14/-Ligature of the Great Arteries In Continuity Treatise on the, etc. By C A Ballance and W Edmunds 8vo (20) Minor Surgery and Bandaging Manual of By C Heath 10th ed 12mo, pp 400 (5) 6/-Oral Surgery System of By J E Garretson 6th ed With Woodcuts and Steel Plates 8vo (42) 42/-Practice of Surgery Syllabus of Lectures on the By N Senn Oblong Cr 8vo, limp (46) 10/-Rectum and Anus Their Diseases and Treatment By Charles B Ball With 61 Illusts and 4 Coloured Plates 2nd ed 12mo, pp 430 Spinal Caries Spondylitis or, Inflammatory Disease of the Spinal Column. By N Smith 8vo, pp 146 (23) Sprains Their Consequences and Treatment By C W M Moullin and ed Cr 8vo Lewis 4/6 Text-Book of Normal Histology By G A Piersol 8vo 15/-

### URINARY ORGANS.

Enlargement of the Prostate Its Treatment and Radical Cure C W M Moullin 8vo Lewis 61-Genito-Urinary Diseases Lectures on By I C O W Withill numerous Illusts 8vo, pp 158 Scientific Press Genito Urinary Diseases A System of Syphilology and Dermatology Ed by Prince A Morrow Six Vols Large 8vo, of about 550 pp each Fully Illust Pentland Ēāch, 14/-Uric Acid as a Factor in the Causation of Disease By A Haig 2nd ed With 36 Illusts 8vo pp 400 (5) 10/6
Urinary Surgery By E Hurry Fenwick, being Vol 1 of Wright's Epitomes of Modern Progress in Medicine and Surgery 8vo (Bristol) Urine in Health and Disease and Urinary Analysis, Physiologically and Pathologically Considered By D C Black Cr 8vo, pp 256 (3) 7/6 Urine Testing Manual of By J Scott 2nd ed , Enlarged, 18mo, pp 

# Medical Annual Official and Trade Directory.

#### GENERAL COUNCIL OF MEDICAL EDUCATION AND REGIS-TRATION OF THE UNITED KINGDOM.

Offices 299, Oxford St., London, W.

President Sir Richard Quain, Bart, MD. Members of the General Council.

Bruce, William, M D, Scotland Foster, Sır Walter, MP, England Glover, James Grey, M.D., England Kidd, George Hugh, M D, Ireland Wheelhouse, Claudius Galen, Esq, England Atthill, Lombe, M D, Banks, Sir John Thos, KCB, MD, (Roy Univ, Ireland) Bryant, Thos, Esq, Cameron, Hector Clare, M D, Carter, Robert Brudenell, Esq, Church, Wm Selby, MD, Duckworth, Sir Dyce, M D, Fraser, Angus, M D , Gairdner, William Tennant, M D Haughton, Rev Samuel, MD, FRS, Leech, Daniel John, M D, Mac Alister, Donald, M D McVail, David Caldwell, M B, Moore, Charles Frederick, M D., Moore, William, M D , Pettigrew, James Bell, M D , F R S , Philipson, George Hare, M D Quain, Sir Richard, Bart, MD, Simon, Sir John, KCB, Smyly, Sir Philip, M D, Teale, Thomas Pridgin, M A, Tuke, John Batty, M D Turner, Sir William, M B, Watson, Patrick Heron, M D,

Wilks, Samuel, M.D.,

Direct Representatives.

(Roy Coll of Physic, Ireland) (Roy Coll Surg, England) (Fac Physic and Surg, Glasgow) Apoth Soc, London) University of Oxford) (Roy Coll Physic, London) Univ, Aberdeen) (Univ , Glasgow) (Univ , Dublin) Victoria Univ , Manchester) Univ , Cambridge) Nominated by Privy Council) (Apoth Hall, Ireland) (Nominated by Privy Council) St Andrew's Univ) Univ , Durham) (Nominated by Privy Council) Nominated by Privy Council) Roy Coll Surg, Ireland) (Nominated by Privy Council) Roy Coll Physic, Edin) (Univ , Edin ) (Roy Coll Surg, Edin) (Univ, London)

### REGISTRARS

ENGLAND—William John Clarke Miller, BA, 299, Oxford Street, London, W. Scotland—James Robertson, I, George Square, Edinburgh IRELAND—Robert Lynn Heard, M D, 35, Dawson Street, Dublin.

#### TREASURERS

Sir Dyce Duckworth, M.D., and Thomas Biyant, Esq.

Army Medical Department .- 18, Victoria Street, London, SW . Surg -Maj-Gen Sii W A Mackinnon, K C B, Director-General

Indian Army Medical Department.—India Office, Westminster

Naval Medical Department.—Admiralty, Avenue House, Northumberland Avenue, London, W C James Nicholas Dick, C B, Director-General

Lccal Government Boards-

Offices, Whitehall, London, SW President, Rt Hon H H Fowler. MP Permanent Sec, Sir Hugh Owen, KCB, Medical Officer, RT Thorne, MB, Inspector for general Sanitary purposes, W H Power M D

IRELAND-Custom House, Dublin Sec, T A Mooney, Esq.

Lunacy Boards-

England-19, Whitehall Place, S.W. Secretary, G. Harold Urmson, Esq. Scotland-51, Queen Street, Edinburgh Sec, T W L Spence, Esq. IRI LAND—Dublin Castle Chief Clerk, J Lowndes, Esq.

Lord Chancellor's Yisitors in Lunacy.—Royal Courts of Justice. Strand, WC Chief Clerk, I M Wade, Esq.

Anatomy, Inspectors of-

LONDON—Wm Hy Bennett, FRCS, I, Chesterfield Street, Mayfair, W PROVINCES—John Birkett, FRCS, 62, Green Street, Grosvenor Square, W SCOILAND-Sir James Alex Russell, M B, Canaan Lane, Edinburgh IRELAND-Wm J Martin, M D, 17, Harcourt Street, Dublin

Anatomy, School of-

T Cooke, FRCS Ed., 40, Brunswick Square, WC

### Vaccination-

The following gentlemen are authorised to give certificates of proficiency in vacunation

LONDON—Robert Cory, M D ,\* 73, Lambeth Palace Road, S E E C Greenwood, L R C P , 19, St John's Wood Park, N W V A JAYNES, MRCS, 157, Jamaica Road, Bermondsey, SE. J Loane, MRCP, \* 98, Tressillian Road, St John's, SE

J F Staines, LRCP, 42, Bloomsbury Square, W C E L Webb, MRCS, 9, St George's Road, Eccleston Square, S W Birmingham—Edmund Robinson, M D,\* 213, Bristol Road, Edgbaston Bristol-Henry Lawrence, LRCP, \* 9, Park Row CAMBRIDGE-Robert Cory, M D

Exere-Wm A Budd, M D, \* 20, Southernhay

Leeds—Fredk Holmes, MRCS,\* Springfield House, Burmantofts. Liverpool.—N. E. Roberts, MB,\* 33, Mulgrave Street

Manchester-Ellis S Guest, M R C S ,\* 263, Oxford Street

NEWCASTLE-ON-TYNE—John Hawthorn, M R C S ,\* 68, New Bridge Street. Sheffield—William Skinner, MRCS, \* 250, Brook Hill

Edinburgh-William Husband, M D, \* 4, Royal Circus

J B Buist, M D, \* r, Clifton Terrace

GLASGOW—Hugh Thomson, M D ,\* 6, Lansdown Crescent.

Henry Thomson, M.D., 2, Coates Crescent W McLennan, M B, 3, Buckingham Terrace

Dublin-A N Montgomery, M R C P, I, \* 45, Upper Sackville Street

Those marked (\*) may give certificates after examination of any candidate, the remainder can only certify those whom they have personally instructed

# MEDICAL AND SCIENTIFIC SOCIETIES.

Abernethian Society—St Bartholomew's Hospital, E.C.

Esculapian Society-115, Green Lanes, N

Anatomical Society of Great Biltain and Ireland-47, Charles Street, Berkeley Square, W

Anthropological Society of Great Britain and Ireland—3, Hanover Square, W Association for the Advancement of Medicine by Research-Secretary, 57, Wimpole Street, W

Association of Fellows of the Royal College of Surgeons of England—Secretary, 39, Welbeck Street, W

Association of Members of the Royal College of Surgeons of England-Secretary, 3, Hamilton Road, Ealing, W.

Association of Registered Medical Women—Sec, 1, Nottingham Place, W British Association for the Advancement of Science-Burlington House,

Piccadilly, W.

British Dental Association—Secretary, 40, Leicester Square, W C

British Gynæcological Society—20, Hanover Square, W British Homœopathic Society—Homœopathic Hospital, Bloomsbury, W C

British Institute of Public Health, 20, Hanover Square, W

British Laryngological and Rhinological Association—Secretary, Radnor Place, W C

British Medical Association—129, Strand, W.C.

British Medical Benevolent Fund—Secretary, 16, Upper Berkeley Street, Portman Square, W

British Medical Temperance Association—Sec, Carlton House, Enfield British Orthopædic Society-Hon Secs, A H, Tulby, 39, Finsbury Circus, EC, and E Luke Freer, 43, Newhall Street, Birmingham Chemical Society—Burlington House, Piccadilly, W

Clinical Society of London—20, Hanover Square, W

Dermatological Society of London-Secretary, 14, Harley Street, W Entomological Society—II, Chandos Street, Cavendish Square, W Epidemiological Society—II, Chandos Street, Cavendish Square, W Geological Society of London—Burlington House, Piccadilly, W.

Harveian Society-Stafford Rooms, Tichborne Street W

Hunterian Society—London Institution—23, Finsbury Circus, E C.

King's College Medical Society—King's College Hospital

Linnean Society-Builington House, Piccadilly, W London Hospital Medical Society-Mile End, E

Medical Defence Union Offices—20 and 21, King William St., Strand, W.C. Medical Officers of Schools Association—Secretary, Christ's Hospital, E.C.

Medical Society of London-II, Chandos Street, Cavendish Square, W

Medico-Psychological Association—Sec, 11, Chandos Street, Cavendish Square, W

Neurological Society—Secretary, 4, Seymour Street, W New Sydenham Society-Secretary, 15, Cavendish Square. W.

Obstetrical Society—20, Hanover Square, W

Odontological Society of Great Britain-40, Leicester Square, W C

Ophthalmological Society of the United Kingdom-II, Chandos Street. Cavendish Square, W

Pathological Society of London—20, Hanover Square, W

Pharmaceutical Society of Great Britain—17, Bloomsbury Square, W C Physical Society of London-Sec, T H Blakesley, Royal Naval College,

Greenwich

Physiological Society—Sec, C. S Sherrington, M D, St Thomas Hospital Poor Law Medical Officers' Association—Sec ,3, Bolt Court, Fleet Street, E C Royal Astronomical Society-Burlington House, W.

Royal Institution-21, Albemarle Street

Royal Medical Benevolent College (Epsom) Secretary, 37, Soho Square. Piccadilly, W

Royal Medical and Chirurgical Society-20, Hanover Square, W.

Royal Meteorological Society—22, Great George Street, S W. Royal Microscopical Society—20, Hanover Square

Royal Society—Burlington House, Piccadilly, W

Royal Statistical Society-9, Adelphi Terrace, W C

Sanitary Institute of Great Britain, with which is incorporated the Parkes Museum-74A, Margaret Street, Regent Street, W.

Society of Medical Officers of Health—20, Hanover Square, W

Society for the Relief of Widows and Orphans of Medical Men-II. Chandos Street, Cavendish Square, W

Society for the Study of Inebriety—Sec, 2, Alexander Road, St John's Wood.

"The Lancet" Relief Fund—Secretary, Strand, W C Volunteer Medical Association—20, Hanover Square, W

West London Medico-Chirurgical Society—West London Hospital, Hammersmith, W

Zoological Society—3, Hanover Square, W.

# Antiseptic Dressing Manufacturers.

Liverpool Patent Lint Co, Netherfield Road, North, Liverpool Macfarlan, J. F. & Co. 9, Moor Lane, Fore St., London, & Edinburgh

Milne, John, Ladywell, S E Robinson & Sons, Chesterfield and

London

Sanitary Wood Wool Co (Lim), Thavies Inn. Holborn Circus St Dalmas, A de, Leicester

# Bottle Makers.

Curle, Jas A, Homer Road, E Harris, H & Co 153, Upper Thames Street, E C Isaacs, I & Co 106, Midland Road, St Pancras

Kilner Bros 24, Great Northern Goods Station, King's Cross, N Ruch, A & Co 12 and 13, Laurence Pountney Lane, Cannon St E C

Youldon, E Great Garden Street, E

# Dietetic Articles (Manufacturers of).

Abbott, Van & Sons, Duke Street Mansions, Grosvenor Square, W. Allen & Hanburys, Plough Court. Lombard Street, E C

Ambrecht, Nelson & Co 2, Duke Street, Grosvenor Square

Blake, Sandford & Blake, 47, Piccadilly, W

Bonthron, John, 106, Regent Street Bovril (Lim ), 30, Farringdon Street, ΕĊ

Bragg, J. L. 14, Wigmore St., W.C. Brand & Co II, Little Stanhope Street, Mayfair, W

Cadbury Bros, Birmingham Callard & Co, 65, Regent Street.W

Carnrick & Co. (Lim), 24 and 25, Hart Street, W C Coleman & Co (Lim), St George's, Norwich, & NewLondonSt E C

Davis, R 20, Maddox Street. W Fry, J S & Sons, Bristol & London Hertz & Collingwood, 4, Sussex

Place, Leadenhall Street Hoff, M 29, New Bridge Street, E C Horlick's Malted Milk, 39, Snow Hıll, EC

Ingram & Royle, 52, Farringdon St Johannis Co (Lim), 25, Regent St King, F & Co (Lim), Belfast, and Camomile Street, E C.

Kreochyle Co Viaduct House, Farringdon Street, E C.
Liebig's Extract of Meat Co (Lim),
9, Fenchurch Avenue
Maltine Manufacturing Co (Lim),
24 & 25, Hart Street, W C
Mellin, G Peckham, S E
Neave, J R & Co Fordingbridge
Nestle, H 48, Cannon Street, E C
Pearce, C W & Co 19, King's Arms
Yard, E C

Rizine Food Co (Lim), 41, Gracechurch Street, E C Rowntree, H I & Co York

Schweitzer, H & Co (Lim), 45, Farringdon Street, E C Squire & Sons, 413, Oxford St, W

Squire & Sons, 413, Oxford St, W Sumner, R & Co. Lord Street, Liverpool

# Druggists (Principal Wholesale)

Allen & Hanburys, Plough Court, Lombard Street, E C Baiss, Bros & Co 4, Jewry St, E C

Barclay & Sons (Lim), Farringdon Street, London, E C

Barron, Harveys & Co Giltspur Street, E C Battley & Watts, Elephant Yard,

Fore Street, E C

Benger, F B & Co (Lim), Otter Works, Manchester

Brady & Martin, Northumberland Road, Newcastle

Bullock, J L & Co, 3, Hanover St, W

Burgoyne, Burbidges & Co 16, Coleman Street, E C Burroughs, Wellcome & Co Snow

Hill Buildings, E C

Christy, Thos & Co 25, Lime Street, E C

Corbyn, Stacey & Co 300, High Holborn, W C

Cox, Arthur H & Co St Martin's
Place, Brighton
Delve Prethon St. Leadenbell

Dakin Brothers, 874, Leadenhall Street, E C

Duncan, Flockhart & Co Edinburgh

Evans, Lescher & Webb, 60, Bartholomew Close, E.C., and Liverpool

Ferris & Co Bristol Fletcher, Fletcher & Co Holloway, N

Gale & Co. 15, Bouverie Street, Fleet Street, E C

General Apothecaries' Co (Lim), 49, Berners Street, E C

Giles, Schacht & Co 52, Royal York Crescent, Clifton, Bristol

Harris Philip & Co (Lim), 144, Edmund Street, Birmingham Hearon, Squire & Francis, 38, South-

wark Street, S E Hewlett, C J & Son, 40 & 41,

Hewlett, C J & Son, 40 & 41, Charlotte Street, E C

Hockin, Wilson & Co New Inn Yard, 186A, Tottenham Court Road, W C

Hodgkinsons, Treacher & Clarke, 101, Whitecross Street, E C

Howards & Sons, Stratford, E Huskisson, H O & Co, Swinton Street, W C

Kuhn, B 36, St Mary-at-Hill, London

Langton, Hicks Bros & Co, 38, Wilson Street, E C

Leslie & Co (Lim), 3, Bond Court, Walbrook, E C

Lorimer & Co Britannia Row, N Macfarlan, J F & Co North Bridge, Edinburgh, and 9, Moor Lane, Fore Street, London

Mackey, Mackey & Co 175, Grange Road, S E

Maw, Son & Thompson, 7 to 12, Aldersgate Street, E C

Newbery, F & Sons, 1, King Edward Street, E C

Oppenheimer, Son & Co (Lim), 14, Worship Street, E C

Parke, Davis & Co, 21, North Audley Street, London, W

Potter & Clarke, 5, 6 and 7, Raven Row, Artillery Lane, E

Potter & Sacker, Šo, Fenchurch St Preston, J 56, Fargate St, Sheffield Reynolds & Branson, 13, Briggate, Leeds

Richards, J M 46, Holborn Viaduct Richardson, J & Co (Lim) Leicester Roberts & Co 76, New Bond St, W Robinson, B Pendleton, Manchester

Seabury & Johnson, 32, Snow Hill

Slinger & Son, York Southall, Bros & Barclay, Birming-

Squire & Sons, 413, Oxford St, W Stern, G & G Gray's Inn Road Sumner, R & Co. 50A, Lord Street, Liverpool

Symes & Ĉo (Lim.), Liverpool

Thompson, Henry A & Son, 22, Worship Street, E C Willows, Francis & Butler, 101, High

Holborn, W C

Wilson, Salamon & Co (Lim), 165, Queen Victoria Street, EC (Fahlberg's Saccharın)

Woolley, Jas Sons & Co Manchester

Wright, Layman & Umney, 50, Southwark, S E

Wyleys (Lim ), Coventry Wyman & Westwood, 58, Bunhill Row, E C

# Medical Transfer Agencies.

British Medical Protection Society. 8, Berners Street, W Logan, J., 95, Bath St., Glasgow Orridge & Co, 32, Ludgate Hill, EC

Thomas, C B C, Devonport Tuinei, Peicival, 4 Adam Street, Adelphi, W C

# Nursing Institutions and Associations.

### London.

Blackheath Nursing Institution, 9, Montpelier Row, S E

Charing Cross Hospital, Strand Chelsea and Pimlico District Nursing Association, 22, Tite St, Chelsea

Deaconesses Institution, 28, Bow Road, E

East London Nursing Society, 49, Philpot Street, Commercial Road, East

General Lying-in Hospital, supplies Monthly and Wet Nurses, York Road, Lambeth

General Nursing Institute, 5, Mandeville Place, Manchester Sq, W Guy's Hospital Trained Nurses' Institution, 14, St Thomas

Street, SE

Hamilton Association for Trained Male Nurses, 57, Park Street, Grosvenor Square, W

Hanover Institute, 22, George Street, Hanover Square, W

Highbury Nurses' Institution, 20, St Mary's Road, Canonbury

Holland Nursing Institution, Tavistock Chambers, Hart St E C

Holy Cross Society of Trained Nurses, 38, Ladbroke Road, W

Hooper, Miss, Nurses' Agency, 9, Upper Baker Street, N W

Ings House Nurses Co-operation, 25. Nottingham Place, Baker Street, W

Institution for Nurses for Nervous and Mental Disorders, 1, Northop Street, Grosvenor Square, W

Kensington District Nursing Association, I, Bedford Gardens, W

London Association of Nurses, 123, New Bond St, W-Branch Offices, 86, Kennington Park Road, SE

London, Clapham and Brixton Institution of Trained Nurses, 210, Clapham Road, S W

London Hospital Private Nursing Institution, Whitechapel Road Metropolitan and National Nursing

Association for the Poor, 23, Bloomsbury Square, W C

Middlesex Hospital Institute, 17, Cleveland Street, W

Mildmay Nuising Home, 9 & 10, Newington Green, N

Nightingale Fund for Training Nurses at St Thomas' Hospital, Sec , 5, Hyde Park Square, W

North London Nursing Institute, 8, Alexandra Road, Finsbury Paik

North London Nursing Association for the Poor, 413, Holloway Road, N

Nursing Institute, 39 & 41, Boundary Road, N W

Nursing Sisters' Institution, Devonshile Square, Bishopsgate

Nursing Sisters of the Poor, 14, Wellington Road, E

Paddington and Marylebone District Nursing Association for the Poor, 510, Edgeware Road, W.

Queen Victoria Jubilee Institute for Nurses, for the Poor, St Katherine's Royal Hospital, Regents Park, N W

Royal British Nurses' Association, 17, Old Cavendish Street, W

Royal Free Hospital Trained Nurses' Institute, Giay's Inn Road, W.C.

St Bartholomew's Hospital Nurses' Institute, 13, West Smithfield

St Helena Home, I Grove End Road, St John's Wood, N W

St John Ambulance Association, St John's Gate, Clerkenwell

St John the Divine Nursing Sisterhood, 68, Drayton Gardens, S W

St John's House and Sisterhood, 8, Norfolk Street, Strand, W C

Westminster Training School, 27, Queen Anne's Gate, S W

Wigmore Institution, 2, Bulstrode Street, Welbeck Street, W

Wilson, D E, 96—98A, Wimpole Street, W

### PROVINCIAL

### Bangor.

Nursing Institute

### Bath.

Hospital Nursing Institute, I Duke Street

### Bournemouth.

Nuises' Institute

#### Bradford.

Nurses' Institute, Manningham Lane

Brighton.

Rawlinson Institution, 113, King's Road

West End Nursing Institution, 1. York Road

### Bristol.

Royal Infirmary General Hospital

Nurses' Training Institution, Clif-

ton

Cambridge.
Nursing Association, 13,

william Street

### Cardiff.

Glamoiganshire and MonmouthshireTiainedNurses'Institution

# Dublin

City of Dublin Nursing Institution, 27, Upper Baggot Street Red Closs Nursing Sisters' House, 87, Halcourt Street

### Eastbourne.

Nursing Institution

# Edinburgh.

Training Institution, 13, Stafford Street

# Glasgow.

Public Dispensary, 54, Dundas St Glasgow Maternity Hospital, 37, North Portland Street

# Great Grimsby.

Nursing Institution, 3, Grosvenor Crescent

### Harrogate.

Trained Nurses' Institution

# Leamington.

Warneford, Leamington & South Warwickshire Hospital

### Leeds.

Nurses' Institute, 21, Hyde Terrace

### Leicester.

Institution for Trained Nurses, Aylestone Road

### Liverpool.

Nurses' Institute, 70, Hope Street 28, Windsor Street

### Maidstone.

Stephen Mockton Nurses' Home, West Kent Hospital

### Northampton.

35, Hazlewood Road

### Nottingham.

Nursing Institution, 1, Regent St Oxford.

36, Wellington Square

#### Salford.

Manchester & Salford Institution, Adelphi Terrace

# Scarborough.

Trained Nurses' Institute, I, West Park Terrace Sheffield.

St George's Home, 5, Clarkehouse Road

334, Glossop Road

Southport.

Trained Nuises' Home, 8, Manchester Road

Swansea.

South Wales Institute

Tunbridge Wells.

Kent Nursing Institution

Worcester

City and County Institution

### Opticians.

Curry & Paxton, 195, Great Portland St, W and Liverpool & Bristol Fournet, A 18, Bentinck St W

### Printers.

Johnston, W & A K Edina Works, Edinburgh

Silverlock, H. 92, Blackfriars Road,

Wodderspoon & Co 7, Serle Street, W C

Wright, John & Co Stone Bridge, Bristol

# Publishers and Booksellers (Medical).

Baillière, Tindall & Cox, 20, King William Street, W C

Cassell & Co (Lim), Ludgate Hill (and Printers)

Churchill, J & A 11, New Burlington Street, W

Cornish Bros New St Birmingham Cornish, J E 16, St Ann's Square, Manchester

Danielsson & Co 52, Beaumont St W

Fannin & Co Grafton St Dublin Griffin, C & Co (Lim) 12, Exeter Street, Strand, E C

Gurney & Jackson, 1, Paternoster Row, E C

Johnston, W & A K, Edina Works, Edinburgh

Kimpton, Henry, 82, High Holborn, W.C.

Lewis, H K 136, Gower St W C

Lippincott, J B Co 10, Henrietta Street, Covent Garden

Livingstone, E & S Teviot Place, Edinburgh

Longmans, Green & Co 39 to 41, Paternoster Row, E C

Low (Sampson) & Co, Fetter Lane, E C

Maclehose, J & Sons, 61, St Vincent Street, Glasgow

Macmillan & Co Bedford St W C

McDowall, Steven & Co (Lim) 4, Upper Thames Street, E C

Murray, James, St Nicholas Stieet, Aberdeen

Oliver & Boyd, Edinburgh

Paul (Kegan), Trench, Trubner & Co (Lim), Charing Cioss Road, W C

Pentland, Young J 38, West Smithfield, E C and II, Teviot Place, Edinburgh

Renshaw, Henry, 356, Strand, W C Rebman, F J, II, Adam Street, Strand, E C

Simpkin, Marshall, Hamilton, Kent, & Co (Lim), Stationers' Hall Court & Paternoster Row, E C Smith, Elder & Co 15, Waterloo

Place, S W Southwood, Smith & Co 4 King St

E C Stenhouse, A College Gate, Hillhead, Glasgow

Watt, A P & Co, 10, Norfolk St, W C

Whittaker & Co 2, White Hart St., E C

Wright, John & Co Stone Bridge, Bristol (and Printers)

# Sanitary Engineers.

Crapper, T & Co 50 to 54, Marlborough Road, S W.

Doulton & Co Albert Embankment Jennings, Geo, 65, Lambeth Palace Road, S E

Llewellins & James, Bristol

North British Plumbing Co 86, Newman St Oxford St W

Patent Gully Co (Lim) Nottingham Reid, A W & Co 69, St Mary Axe, E C Sanitary Engineering & Ventilation Co 65, Victoria Street, S W Winser & Co 52, Buckingham Palace Road, S W

### Sanitary Surveyors.

Carter, H CE 65, Victoria St S W Clark J E 25, Gt Ormond St W C Hallett, Walter & Co, 102, Harrow Road, W

London & Suburban Sanitary Survey Association, 34, Victoria St Pilditch, P E, 17, Parliament St Sanitary Survey Association, 85, Gower Street, W C

Sanitary Engineering & Ventilation Co 65, Victoria Street, S W Tidman, Ed, CE 34, Victoria St

### Surgical Instrument and Appliance Manufacturers.

Arnold & Sons, West Smithfield Bailey W H & Son, 38, Oxford St Carter A 47, Holborn Viaduct, E C Carter, John, 6A, New Cavendish Street, W Cocking, J T Plymouth Coxeter, James & Son, 4 and 6,

Grafton Street, W C

Dakın Bros - Offices, 87A, Leadenhall Street, E C

"Domen" Belts Co 61, Moor Lane, E C

Down Bros 5 & 7, St Thomas St SE

Ernst, Fr Gustav, 80, Charlotte Street, Fitzroy Square, W Evans & Wormull, 31, Stamford St SE

Fannin & Co Grafton St Dublin Ferris & Co Bristol

Gale, George & Sons, Leeds Gray, Joseph & Son, Truss Works, Sheffield

Grossmith, W R 175, Fleet Street Hawksley, T 357, Oxford St W Hills & Co 46, Newcomen Street,

Boro', S E Hooper & Co 7, Pall Mall, East Hurst & Co. 6, Fowkes Buildings, Great Tower St, EC

Hutchinson, W & H Sheffield Huxley, E 13, Old Cavendish St Oxford Street, W

King, Mendham & Co Bristol

Krohne & Sesemann, 8. Duke Street. Manchester Square, W

Lindsey & Sons, 40, Gracechuich St Lynch & Co 192, Aldersgate Street Matthews Bros 10, New Oxford St Maw, S Son & Thompson, 7 to 12, Aldersgate Street, E C

Mayeı & Melt∠er, 71, G1eat Portland Street, W

Milne, John, Ladywell, S.E.

O'Connor Extension Co, 275 & 276, High Holborn, W C

Reynolds & Branson, 13, Briggate, Leeds

Salmon, H R 42, Beaumont St W Salmon, Ody & Co 292, Strand Schall, K 55, Wigmore Street, W Schramm, K R Gt Castle Street,

Cavendish Square, W Spratt, W H & Brooke, 48, New

Bond Street, W Statham, H & Co Corporation St

Manchester Stubbs, J 94, Sheaf St, Station Road, Sheffield

Ward, John, 246, Tottenham Court Road

Weiss, J & Son, 287, Oxford Street Winter, R J & Co 55 to 59, Goodge Street, W

Wright, C & Co, 108, New Bond Street, W

Wright, T G Denmark St, Bristol

# Yaccine Lymph.

Lymph is supplied, free of charge, on application to National Vaccine Establishment, New Government Buildings, Whitehall, London, S W Association for the supply of pure Vaccine Lymph, 12, Pall Mall,

East, SW

Dakin Bros, 87A, Leadenhall St Faulkner, W 16, Endell Street, Bloomsbury, W C Ferris & Co Bristol

Hime, Dr , Bradford, Yorks Rebman, F J 11, Adam St, Strand Renner's (Dr ) Establishment, 186,

Marylebone Road, N W Somerville, R & H 10, Spring Gardens, Edinburgh

Têtu, M 16, Surrey Square, Old Kent Road, SE

# Medical and Scientific Newspapers, etc.

American Journal of Science— Monthly, 30/- per annum— Kegan Paul & Co Charing Closs Road, W C Charing

Analyst-Monthly 1/--Baillièie and Co King William Street, W C Anatomy and Physiology, Journal of

-24/- per annum-Williams & Norgate, Covent Garden

Annals of Surgery—Monthly 2/--Baillière & Co, King William

Street, WC

Anthropological Journal—Quarterly 5/--Kegan, Paul & Co Charing Cross Road, W C

Asclepiad — Irregular 2/6—Longmans & Co Paternoster Row

Birmingham Medical Review -Monthly 6d—Hall & English, High Street, Birmingham

Journal of Medicine-Weekly, 30/6 per annum— Kegan Paul & Co Charing Cross Road, W C

Botanical Magazine - Monthly 3/6 -Reeve & Co 5, Henrietta St Covent Garden

Botany, Journal of-Monthly 1/3-West, Newman & Co 54, Hatton Gaiden

Brain—Quarterly 3/6—Macmillan & Co Bedford Street, W C

Braithwaite's Retrospect — Half Yearly 6/6—Simpkin & Co Stationers' Hall Court

Bristol Medico-Chii urgical Journal —Quarterly 1/6—I W Arrowsmith, Bristol

British and Colonial Druggist -Weekly 3d-42 Bishopsgate Street without, E C

British Gynæcological Journal -Quarterly 2/6—John Bale and Sons, Gt Tichfield Street, W

British Homœopathic Society, Journal of—Quarterly, 2/6— Bale & Sons, Gt Titchfield St

British Medical Journal-Weekly 6d—429, Strand, W C

Chemical Industry—Journal of Society of-Monthly-East Harding Street, E C

Chemical News-Weekly 4d-Boy Court, Ludgate Hill, E C

Chemical Review—Monthly 1/---5,

Furnival Street, E C

Chemical Society, Journal of the-Monthly, 30/- per annum— Gurney & Jackson, 1, Pater-noster Row, E C

Chemist and Druggist, the—Weekly 4d, 10/-per annum-42, Cannon

Street

Chemists and Diuggists, Register of —Annual 5/-—17, Bloomsbury Square

Clinical Journal—Weekly 3d—30 and 31, Temple Chambers, E C Dental Association, Journal of Biitish—Monthly 6d—Baillière

and Co, King William Street Dental Record-Monthly 6d-6, Lexington St., Golden Square

Dental Science-British Journal of —1st and 15th 6d—J P Segg & Co 291, Regent Street, W

Dentist's Register—Annually 3/9— General Medical Council, 299, Oxford Street, W

Deimatology-Biitish Journal of-Monthly—H K Lewis, 136, Gower Street, W C

Dublin Journal of Medical Science -Monthly 2/- -Fannin & Co

Edinburgh Medical Jour - Monthly 2/- -Oliver & Boyd, Edinburgh

Entomologist, Monthly Magazine— Monthly 6d-23, Paternoster Row, E C

Entomologist, Newman's-Monthly 6d-23 Paternoster Row, E C

Geological Magazine—Monthly 1/6 -Kegan Paul & Co Charing Cross Road, W C

Geological Society, Journal of— Irregular 5/-—14, Henrietta St

Geologist's Association's Proceedings—Quarterly 1/6—E Stanford, 27, Cockspur Street

Glasgow Medical Journal—Monthly 2/- —A Macdougall, Mitchell Lane, Glasgow

Guy's Hospital Gazette-Monthly 6d—42, Southwark Street

Guy's Hospital Reports—Yearly— & A Churchill, New Burlington Street, W Health—Weekly 2d—2, Paternoster

Square

Homocopathic Review-Monthly 1d -E Gould & Son, 59, Moorgate Street, E C

Homeopathic World-Monthly 6d —12, Warwick Lane

Hospital—Weekly 2d—428, Strand Hygiene-Monthly 6d-39, Southampton Street, W C

Ibis, the—Quarterly 6/- —Gurney & Jackson, I, Paternoster Row

Index Medicus—Monthly—Kegan Paul & Co Charing Cross Road,

International Journal of the Medical Sciences—18/- per annum—Young J Pentland, 38, West Smithfield

Irish Medical Directory—Annually 6/- —Baillière & Co 20, King William Street, W C

Knowledge—Monthly 6d—326, High Holborn

Lancet—Weekly 7d—423, Strand, W C

Laryngology, Rhinology, & Otology, Journal of - Monthly 1/3-11, Adam Street, W C

Linnæan Society, Proceedings of-Annually 3/-—Longmans & Co Linnæan Society, Transactions-Ir-

regular Price varies—Society's Apartments, Burlington House Liverpool Medical Chirurgical

Iournal — Half-vearly — H K Lewis, Gower Street, W C Medical Annual—Annually 7/6—

J Wright & Co Bristol Medical Chronicle—Monthly 1/6 —

John Heywood, Manchester Medical Directory—Annually 14/-

-I & A Churchill, 11, New Burlington Street

Medical Magazine—Monthly 2/6— Southwood, 140, Strand, W C Medical Pioneer — Monthly — 33, Paternoster Row, E C

Medical Press & Circular—Weekly 5d—A A Tindall, 20, King William Street

Medical Record (New York)-Weekly, 30/- per annum— Kegan Paul & Co Charing Cross Road, W C

Medical Register—Annually 6/-— 299, Oxford Street, W

Medical Student's Register—Annually 2/6-229, Oxford St W Medical Temperance Journal-Quarterly 6d-33, Paternoster Row

Medical Times & Hospital Gazette-Weekly-11, Adam St , Adelphi

Mental Science, Journal of—Quarterly 3/6—J and A Churchill, 11, New Burlington Street Meteorological Record—Quarterly

-E Stanford, 27, Cockspur St Meteorological Society, Journal of —Quarterly 5/- —E. Stanford, 27, Cockspur Street, S W

Microscopical Science, Quarterly Journal of—10/-—J and A Churchill, New Burlington St

Microscopy and Natural Science, International Journal of-Quarterly 2/6 - Baillière & Cox, King William Street

Mind—Quarterly 3/- —Williams & Norgate, Henrietta Street, W C Monthly Extract of British Journal of Dental Science—Subscribers

only—322, 324, Regent St, W Naturalist-Monthly 6d-Henrietta Street, W C

Nature-Weekly 6d-Macmillan & Co Bedford Street

Nervous and Mental Diseases— Quarterly, 18/- per annum— Kegan Paul & Co Charing Cross Road, W C

New Sydenham Society—Irregular —Subscription 21/-—H K Lewis, 136, Gower Street

New York Journal of Medicine-Weekly, 30/6 per annum— Kegan Paul & Co, Charing Cross Road, W C

New York Medical Journal—Weekly 33, Bedford Street, W C

Nursing Directory—Annually — 11, Adam Street, Adelphi

Nursing Record—Weekly id—Record Press (Lim), 376, Strand, wс

Odontological Society, Transactions of-Monthly during Sessions 2/6—Bale and Son, 87, Great Tichfield Street

Ophthalmic Hospital Reports—Half Yearly 5/- — I & A Churchill,

New Burlington Street

Ophthalmic Review-Monthly 1/--- ] & A Churchill, New Burlington Street

Ophthalmological Society's Transactions — Yearly — J and A Churchill, 11, New Burlington Street, W

Ophthalmology, Archives of — Quarterly, 20/- per annum— G P Putnams Sons, 24, Bedford Street, W C

Otology, Archives of - Quarterly, 12/-per annum—G P Putnams Sons, 24, Bedford St, WC

Pathology & Bacteriology, Journal of—Quarterly—Y J Pentland, West Smithfield, E C

Pharmaceutical Journal — Weekly 4d-17, Bloomsbury Sq, WC Pharmaceutical Society, Calendar of —Annually 1/- — 17. Blooms-

bury Square Pharmacy, Monthly Magazine of-Monthly 6d—Burgoyne, Burbidges & Co 16, Coleman St

Physiology, Journal of-21/- per volume-Ave Maria Lane Practitioner — Monthly 1/6—Mac-

millan & Co Bedford Street Provincial Medical Journal-Month-

ly 6d—10, Friar Lane, Leicester Psychical Research, Proceedings of

Society for — Occasionally — Kegan Paul & Co Charing Cross Road, W C

Public Health—Monthly I/---E W Allen, Ave Maria Lane, E C

Quarterly Therapeutic Review—1/--Baiss Bros & Co 4, Jewry St Quekett Microscopic Club, Journal of—Half-yearly 2/6—Williams

and Norgate, 14, Henrietta St Registrar General's Return Births, Deaths & Marriages— Weekly, Quarterly & Annually - Eyre & Spottiswoode, East Harding Street

Royal College of Surgeons' Calendar -Annually 1/- Taylor and Francis, Red Lion Court, Fleet Street, E C

Royal Microscopical Society, Jouinal of—B1-Monthly, 30/- per annum-Williams & Norgate. Henrietta St Covent Garden

Sanitary Journal-Monthly, 6/- per annum-Mitchell Lane, Glasgow

Sanitary Record—Weekly 3d, 10/per annum-2, Lexham Gardens

Science Gossip - Monthly 4d -Trafalgar Buildings, W C

Scientific American—Weekly, per annum 18/-—Kegan Paul & Co Charing Cross Road, W C

Scientific American Supplement-Weekly, 21/- per annum— Kegan Paul & Co Charing Cross Road, WC

Scientific Review-Monthly 6d-Kent & Co 21. Cockspur St Sheffield Medical Journal—Quar-

terly 2/--263 Glossop Road, Sheffield

St Bartholomew's Hospital Reports —Yearly—15, Waterloo Place

Thomas's Hospital Reports-Yearly — ] & A Churchill, New Burlington Street, W

Rebman, 11, Adam St, W.C Universal Medical Journal—F Veterinarian — Monthly 1/6—221,

Bartholomew Close, E'C

Vetermary Journal—Monthly 1/6— Baillière & Co King William St Westminster Hospital Reports—

Yearly—[ & A Churchill, New Burlington Street, W

Year Book of Pharmacy—Annually 10/--J & A Churchill, 11, New Burlington Street, W

Year Book of Treatment—Annually 7/6—Cassell & Co

Zoological Record—Annually 30/--Gurney & Jackson, Paternoster Row

Zoological Society of London, Proceedings—Quarterly 3/- plain, 12/- coloured—Longmans & Co Paternoster Row

Zoologist—Monthly 1/- — Simpkin and Co Paternoster Row

# The Medical Annual Note Book

It is easier to make a note of a thing, than to remember where the note was made. The following pages are indexed under their respective headings, and any note can be immediately found when required

#### NOTES.

Copy here any formula or fact you wish to keep for reference. These pages are indexed under the words 'Notes')

#### NOTES

NOTES.

# ADDRESSES (PRIVATE).

## NURSES.

Note whethe Milvile y or Sick Nurse, their terms and private address

# BOOKS OR INSTRUMENTS LENT

# NOTE BOOK

# DRUGS WANTED.

# DRUGS WANTED.

# INSTRUMENTS, APPLIANCES OR MATERIALS WANTED

#### FOUNDED IN THE YEAR

1823

# THE EDINBURGH LIFE

# Assurance Company

has had a prosperous career extending over upwards of

# SEVENTY YEARS.

During that Period it has issued more than

34,000 Policies Assuring upwards of £20,000,000

Paid in Claims - - -- £5,750,000

Distributed in Bonuses -**- £2,000,000** 

IT NOW HAS AN

Annual Income of upwards of - £350,000

AND HAS BUILT UP AN

Accumulated Fund of £2,800,000.

# POLICIES NON-FORFEITABLE AND WORLD-WIDE.

Write for the Prospectus of the Lew "Edinburgh" Policy

Guaranteed Options suitable to Medical Men and others

1bead Office: -22, GEORGE STREET, EDINBURGH. London Office -11, KING WILLIAM STREET, E.C.

# INDEX TO LIFE ASSURANCE OFFICES

A, when Established, B, C, D, Annual Premiums to Insure £100 on death with Profits, at the age of 30, 40, and 50, E, Assurance and Annuity Funds, exclusive of Paid-up Capital M, Mutual Offices, P, Proprietary Offices

Those marked with an asterisk (\*) in the E column have not sent revised figures for 1894

	A	В	1	D	E
TITLE, &c, OF OFFICE			_ <u>c</u> _		
Abstainers and General, Life and Accident Sec RA Craig, AIA PAlliance, Fire and Life, Bartholomew Lane, FC	1283	40/11	55,/10	82/3	£ 64,037
Sa, Robert Lewis Atlas, Fire & Life, 92, Cheapside, E C  Act, George	1824	48/9	64/5	90/9	2,370,398
King Ass Sec, A W Yeo Sec, S. J Pipkin Further particulars see page 642	1808	49/3	63/7	88/8	1,402,988
British Empire, Mutual Life, 4 & 5, King William Street, E C Act and Sec, G H Ryan M	1847	47/2	63/9	92/3	1,709,725
British Equitable, Life, r. Queen Street Place, E C Man Dir & Act, W & Gover, F S S, F I A P British Workman s and General, Life and Endowments, Broad Street Corner, Dimmighain. Man,	1854	49/-	66/-	94/3	1,431,303
H Port, FSA. Further particulars see page 641 Caledoniam, Fire and Life, 19, George Street, Edinburgh Man, D Deuchar London Office, 82,	1866	48,-	64/6	92/3	159,404
King William Street, E C City of Glasgow, Life, 30, Renfield Street, Glasgow	1805	48/9	64/6	88,6	1,172,007
Man, F F Elderton London Office, 12, King William Street, E C Sec, Arthur J Hemming, F I A	1838	48/5	64/6	89/10	1,954,956
Clergy Mutual, Life, Endowments, &c., 2 & 3, Sanctuary, Westminster Sec., G. H. Hodgson M. Clerical, Medical and General, Life, 15, St. James'	1829	46/4	б2/2	87/4	3,819,630
Square, and Mansion House Buildings Act, B Newbatt P Colonial Mutual, Life and Annuity, 33, Poultry	1824	48/9	65/-	90/9	3,128,863
Man, E W Browne A Sec, B H Dames M	1873	44/8	60/9	86,2	1,662,301
Commercial Union, Fire, Life and Marine, 19 & 20, Cornhill, E C Act, T E Young, B A P Co-operative, Fire, Life and Fidelity, Long Millgate,	1861	49/5	64/2	87/8	1,508,849
Manchester Man, James Odgers P Eagle, Life, 79, Pall Mall, SW Man and Sec,	1867	45 10	61/8	87/6	8,549
Geo R Jellicoe P Economic, Life, 6, New Bridge Street, Blackfriars	1807	50/8	65/5	91/4	2,389,768
Act and Sec, G Todd, MA, FIA M Edinburgh, Life and Annuities, 22, George Street,	1823	44/3	59/9	87/6	3,630,218
Edinburgh Man, G. M. Low, F. F. A. Sec., A. Hewat, F. F. A., F. I. A. London Office, 11, King William Street, E. C. Sec., Frank Griffith Further particulars see page 636  English and Scottish Law, Life, Annuity, Endow-	1823	47/7	63/2	89/-	2,616,852
ment, and Loan, 12, Waterloo Place, SW Gen Man, -Arthur Jackson P Equitable Life Assurance Society, Mansion House	1839	48/8	64/6	90/-	1,799,245
Street, E.C. Act, H. W. Manly M. Equity and Law, Life, 18, Lincoln's Inn Fields, W. C.	1762	53/5	67/11	90/8	4,174,635
Act, A F Burridge, F I A P Friends' Provident. Life Annuities, &c, Bradford,	1844	48/10	64/6	90/9	2,543,687
Yorkshire Act and Sec, John Bell Tennant M General Life, 103, Cannon Street, EC Man and Sec, John Robert Freeman Further par-	1832	45/9	58/I	79/3	2,294,794
tulars see page 644 P	1837	49/10	65/4	92/8	1,467,584

A when I stablished, B, C, D, Annual Premiums to Insure Loop on death, with Profits, at the use of 30, 40 and 50, E, Assurance and Annuit Hunds, exclusive of Paid-up Capital M, Mutual Offices, P, Proprietary Offices

Firle, &c, of Office	A	_B	_C	D	E
					£
and Man Limes H Scott	1848	49/-	65/8	94′3	5,790,594
Guardian, Fire and Life, 6, Princes St, Bank, and 21, Fleet Street Sec, T G C Browne P H ind-in-Hand, Fire, Life and Annuities, 26, New	1821	48/10	64/6	89/3	2,676,000
Hund-in-Hand, Fire, Life and Annuities, 26, New Bridge Street, Blackfriars, E.C. Man, B. Blen					
kinsop	1696	50'8	68/10	99/3	*2,522,199
Imperial, Life, r, Old Broad Street, and 22, Pall	1820	46/II	62/1	87/5	*2,116,498
Mull Act and Man, J Chisholm, I I A Lancashire, Life and Fire, Exchange Street, Man	1020	40/11	02/1	0//3	2,110,490
chester Gen Man Digby Johnson, London Office, 14. King William St., E. C., John Oliver P.	1852	18/6	62'6	20/6	T 000 880
chester Gen Man Digby Johnson, London Office, 14, King William St. & C. Sec., John Oliver P. Law Life, 187, Fleet Street Man, E. H. Holt 4ct. A. B. Adland	1052	48/6	63'6	90/6	1 099,889
1ct. A B Adlard P Law Union and Crown, Life, Fire and Annuities, 126	1823	49'4	64/10	91/-	3 813,277
Chancery Lane Gen Man, A Mackay P	1825	48'4	€4 -	89/10	*2,926,104
Legal and General Life, 10, Fleet Street, E.C. 11ct and Man, E. Colquhoun, F.I.A.	1836	50 9	65'11	90/9	2,831,000
Life Association of Scotland, 82, Prince's Street,	1030	30 9	03 11	90,9	2,031,000
Fdinburgh Sec, J Sharp London Office, 5, Lombard Street Sec, J C Wardrop P	1838	50/-	65/4	93/4	3,999,486
Liverpool and London and Globe, Fire, Life and	5-	3-,	-5/4	93/4	319991700
Annuties, r Dale Street, Liverpool Sec., John M Dove London Office, 7, Coruhill, E C Sec., A Hendriks, E I A	1		1	1	
A Hendriks, FIA P	1836	49/3	65/6	91/3	4,456,573
I ondon Amicable, Life and Accident, 3, Regent Street, SW Sec, Walter Willand P	1887	47 10	63/5	91/4	46,409
London and Lancashire, Lile, 66 & 67, Cornhill, E. C. Man & Act, W. P. Clirchugh. 4sst Sec., G. W.	'	1			
Mannering	1862	4 10	62/4	86/10	873,595
London Assurance Corporation, Fire, Life and Marine, 7, Royal Exchange Act, A H Bailey,					
FIA	1720	49 6	64'11	91'5	2,006,573
I ondon, Edinburgh and Glasgow, Li c, Industrial, and Accidents, Farringdon Street, E.C. Sec,					
f V Cowling	1881	43/11	64'7	92'-	*71,331
London Life Association, I im, 81, King William St, L.C. Act and Sec., C. D. Higham, F.I.A. M. Varine and General Mutual, Life and Marine, 14,	1806	60/1	78 10	108 4	4,194,046
Marine and General Mutual, Late and Marine, 14, I eadenhall Street, E C. Act and See, S. Day,		'			
FIA	1852	48 10	65 11	91 11	686,896
Metropolit in Life, 13, Moorgate St, EC Act,  Pearson Further particulars we page 644 M	r835	49 9	66/4	92/-	1,983,423
1 Pearson Further particulars we page 644 M Mutual Life, 39, King Street, Cheapside, E.C. Let and Man, G. Marks, FIA Sec., H. G.	1033	499	00.4	92/-	1,903,423
Rowsell Marks, FIA Sec., H G	1834	48/10	66′8	97/11	1,268,391
National Assurance of Ireland, Fire, Life, and	54	, -,		377	-,200,391
Annuities, 3. College Green, Dublin Ict and Sec, Harold Engelbach, London Office, 33, Nicholas					
Lune, E.C. Res Sec., Charles Smith. P. National Guardian, Life and Loans, 21, New Oxford	1822	48/7	64/3	91/7	*271,573
Stree WC Sec, Thomas J Bourne	1865	48/6	64 8	86/8	*9,435
Stree W.C. See, Thomas J. Bourne P. National Life, 2, King William Street, City Act and See, A. W. Sunderland Asst See, H. J.	_		•		37,100
1.ockwood M	1830	50'4	65′9	92/8	859,820
National Provident, 48, Gracechurch Street, E.C. Act and Sec. Arthur Smither	1835	50/0	66/3	-	
Act and Sec, Arthur Smither  North British & Mercantile, Fire, Life & Annuities,  L. Threadneedle Street, E.C. and L. Princess	1035	50/2	00/3	91/1	*4,673,865
Street, Edinburgh Life Man and Act , London,					
ri Cockburn, Sec, F W Lance Further par-					
Northern Assurance, 1, Moorgate St. EC Sec.	1809	49/10	66/I	91/11	8,023,084
H E Wilson . P	1836	48'8	64/10	92/4	2,766,240

A, when Established, B, C, D, Annual Premiums to Insure £100 on death, with Profits, at the age of 30, 40 and 50, E, Assurance and Annuity Funds, exclusive of Paid-up Capital M, Mutual Offices, P, Proprietary Offices

TITLE, &c, or OFFICE	A	В	С	D	E
Norwich Union, Life, Norwich Sec. I I W	1808	45/8	59/6	85'3	£ 2,064,715
Deuchar London Office, 50, Fleet Street, E C Patriotic Life and Fire, 9, College Green, Dublin Man, B H O'Reilly Act, Samuel Hunter London Office, 19, King William St, E C Man.					
Chas E Strong P Pearl, Life, London Bridge, City, E C Man, P I	1824	48/8	64/5	90/4	138,569
Foley, M P Pelican, Life, 70 Lombard Street, and 57, Charing	1864	50/-	67/5	96,6	*351,732
Cross Sec, R C Tucker, F I A P Positive Government Security, Life, 25, Abchurch Lane, E C Man & Act, A G Mackenne, F I A,	±797	48/11	64/9	91/7	1,105,315
F F A Post Office, Life & Annuities, St Martin's le Gi and,	1870	47/1	64'7	94/3	481,488
Act, A Finlaison Provident, Life, 50, Regent Street Sec, C Stevens P Provident Clerks, Life and Benevolent Fund, 27,	1865	46/ <del>-</del> 50 2	61/6 66/4	87/6 92/10	2,800,404
Mooigate Street, E.C. Sec., John E. Gwyer. M. Prudential (Ordinary), Life, Holborn Bars. Sec., W. J. Lancaster. Further particulars, sec.	1840	46/4	62/8	92'2	1,725,000
page 64r  Refuge, Industrial Life, 89, Corporation Street, Manchester Man, W Proctor London Office, 29, New Bridge Street Supt, W Hewitt P	1848	49/6	65/11	91,11	8,002,142
29, New Bridge Street Supt, W Hewitt P Reliance, Life, 71, King William Street Sec E C	1364	49/3	65/9	91/9	*86,395
Griffith	1840	49/4	65/10	94/2	*754,833
Rock, Life and Survivorship, 15, New Bridge Street, E.C. Act., G.S. Crisfold, F.I.A. P. Royal, Fue, Life and Annuities, Royal Insurance Buildings, Liverpool. Man., Chas. Alcock	1806	53′5	67/11	90 8	1,894,226
London Offices, Lombard Street Sec, John H P Royal Exchange Assurance, Fire, Life, Annuities, &c, Royal Exchange, and 29, Pall Mall Act,	1845	49/9	64 'I	88/3	*4,730,357
&c, Royal Exchange, and 29, Pall Mall Act, H E Nightingale, FIA P Sceptre, Life and Endowments 40, Finsbury Pave-	1720	49 '2	64/11	92'4	2,050,577
ment, E.C. Sea, J.G. Phillips P. Scottish Amicable, Life, St. V. Incent's Place, Glasgrw Man, Robt Blyth, C.A., F.F.A. Sea, W.G.	18б4	488	64/8	90,/6	*533,890
Spens M Scottish Equitable, Life, 26, St Andrew Square, Edinburgh Man, T B Sprague, M A, LL D Sec. I I McLauchlan London Office. 60.	1826	51/9	66/3	90/1	3,397,823
King William Street, E.C. See, W.T. Gray ivi Scottish Imperial, Life, 183, West George Street, Glasgow Man, T. Wilkinson Watson London Office, 15, King William Street, E.C. P	1831	50, 3	65/5	90/9	3,612,821
Office, 15, King William Street, E.C. P. Scottish, Life, Accident and Annuities, 19, St. Andrew's Square, Edinburgh Sec., James Sorley, F. I.A. London Office, 20, King William Street,	1865	46/7	63/5	91/7	386,335
E C Sec, George Struthers Quale, Scottish Metropolitan, Life, 25, St Andrew Squale, Edinburgh Man, Wm G Bloxsom London Office, S. King Street, E C Man, H E	1881	49/5	64/6	90/5	*206,608
Scottish Provident, Life and Annuities, 6, St. Andrew Square, Edinburgh Man., Jas G. Watson Secs., J. Lamb and H. R. Cockburn London Office,	1876	40/8	54/7	79/7	190,029
17, King William Street, E.C. See, J. Muir Lettch Scottish Temperance, Life and Accident, 8r, Ren- field Street, Glasgow Man, Adam K. Rodger	1837	41/6	54/9	81/7	8,536,301
London Office, 96, Queen Street, Cheapside Man, W A Bowie	1883	48/6	63/9	89/10	177,223

1, II nen Established, B, C, D, Annual Premiums to Insure £100 on death with Profits, at the aze of 30, 40, and 50 E, Assurance and Annuity Funds, exclusive of Paid-up Capital M, Mutual Offices, P, Proprietary Offices

Tirle, &c, of Orfice	A	В	C	_D_	E
Scottish Union and National, Fire, Life, and Annuities, 35, St Andrew Square, Edinburgh Sec. J. K. Macdonald London Office, 3, King William Street, E.C. Sec., William Porteous P. Scottish Widows' Fund, Life and Survivorship, 9, St Andrew Square, Edinburgh Man & Act., A. H. Turnbull Sec., J. J. P. Anderson London	1824	50/-	65/-	90/-	£ 3,335,918
A H Turnbull Sec, J J P Anderson London Office, 28, Cornhill, E C Sec, J W Miller Willer, 3, George Street, Edinburgh Man and Act, S C Thomson London Office, 83,	1815	51/9	66/3	90/7	12,017,767
King William Street, and 3 Pall Mall East Sec., J. H. W. Rolland P.	1825	48/11	64/5	89/-	7,636,600
Star, Life, Annuities, Endowments, 32, Moorgate Street, City Act and Sec, H G Hobson P Sun, Life, 63, Threadneedle Street, E C Act, H	1843	48/9	64/11	90/6	3,527,786
C L Saunders, F R A S , F I.A P	1810	49/2	66,′6	94/2	*2,934,424
Union, Fire and Life, Cornhill, and Baker Street Sec. C Darrell P United Kent, Life and Annuities, High Street, Maid-	1714	48/9	64/6	90/10	1,893,804
stone Gen Man, Walter L Seyfang London Office, 124, Cannon St, E C Man, A Wallis P	1824	49/8	64/3	90/5	490,816
United Kingdom Temp, &c, Life, 1, Adelaide Place, London Bridge Sec, Thomas Cash M	1840	48/10	64/11	50/6	*5,323,864
Universal, Life, i, King William Street, E.C. Sec. Fred Hendriks, F.I.A. P.	1834	48/10	63/-	85/6	1,059,407
University, Life, 25, Pall Mall, S W Sec, H W Andras, F I A.	1825	50/9	64/7	87/6	993,483
Victorii, Life and Endowment, Memorial Hall Buildings, Farringdon Street, E C Sec., Arthur J Cook, A I A Wesley an and General, Life, Annutices, Sickness, Moor Street, Birmingham Gen Man R A Huat, F S S, A I A London Office, 2, Finsbury	1860	49/3	65/7	93/-	67,516
Squire, E C	1841	48/9	66/6	96/3	÷250,000
Westminster and General, Life, 28, King St., Covent Gorden, W.C. Act., Ernest Woods, F.I.A. P. Vorlichter, Fire and Life, St. Helen's Square, Vork	1836	48/10	65/-	90/6	*503,218
Provid Street, E C Sec, James Hamilton P	1824	49/7	65/-	89/I	656,548

# PRUDENTIAL ASSURANCE COMPANY,

LIMITED

# HOLBORN BARS, LONDON

### DIRECTORS

EDGAR HORNE, Esq, 17, Great George Street, Westminster, Chairman Henry Harben, Lsq, JP, Seaford Lodge, Hampstead, Deputy-Chairman Robert Barnes, MD, Lingwood, Lyss, Hampshire Patrick Fraser, MD, Stoke D'Abeinon, Suirey (Honorary) HA Harben Esq, 1, New Square, Lincoln's Inn, London. WT Plgii, Esq, Palmeira Mansions, West Brighton Percy T Reid, Esq, Lloyd's, London J W Simmonds, Esq, JP, York Road, Lambeth I Homas Wharrie, Esq, Eton Avenue, Hampstead

### MANAGERS

THOMAS C DEWEY, LEY WILLIAM HUGHES, ESQ Sub-Manager—F FISHER ESQ Actualy—F Schooling, Esq Every Description of Life Assurance and Annuity Business Transacted.

# INVESTED FUNDS £20,000,000.

The Last Annual and Valuation Reports can be obtained on application

W J LANCASTER, Secretary

ESTABLISHED 1866.

# BRITISH WORKMAN'S AND GENERAL ASSURANCE COMPY., Ltd.

# INDUSTRIAL AND ORDINARY LIFE ASSURANCE.

Annual Income over £370,000 | Funds exceed £200,000 Total amount paid in Claims up to Oc ober 1894, £1,363,634 Over 169,000 Proposals, at an Annual Premium of £99,660, were received during the half-year ending October, 1894

Agents throughout England, Scotland, Ireland, and Wales.

## LONDON (CITY) OFFICES

WEST STREET, FINSBURY PAVEMENT, E.C. CHIEF OFFICES

BROAD STREET CORNER, BIRMINGHAM.

41

# TLAS ASSURANCE COMPANY



ESTABLISHED 1808

HEAD OFFICE, LONDON-92, CHEAPSIDE, E.C.

DIRFCIORS
SIR WILLIAM I W BAYNIS BARI, Chairman
CHARIIS ANDREW PRESCOII, E-q. Diput; Chairman
Hirbert Brooks E-q | Frederick Green, L-sq CHARTIS ANDREW PRESCOIL, ESQ. Dignt; Chairman Hilbert Brooks Esq.
JAMIS PATITISON CURKIF EST.
WITHAN COFFON CURKIF EST.
WITHAN COFFON CURKIF EST.
WITHAN COFFON CURKIF EST.
BENJAMIS BUCK GREPNE, ESQ.
RICHARD BEANTY WITH ESQ.
MEDICAL OTHER FOLLOWS HILLIED, ESQ. F.R.C.S.
BANKIRS—WISSIS PRESCOIT, DIMSDALE, CAVE,
LUGWILL & CO., ITHILLE
ACTUARY—GEO KING ASSI SECILIAL—ALFD WILLOSIGNIAN—SAMIL J. PIPKIN

#### BRANCHES

Losnos, West Lad, 4, Pall Wall Fast, S.W. | Linos, 1, East Paride INTERPOOL, I, Inhabun Street MANCHESTER, 30, Booth Street, Cooper St BIRMINGHAM, 9, Bennetts Hul Bristor, 25, Clair Street GLASGIW, 119, West George Street

# The GROWTH OF THE BUSINESS is shown by the following figures.

£95,898 LIII PRIMIUMS IUTAL INCOME 1883 £79,734 £256,554 1803 347,481 120,866 541,295

Total Assets (31st December, 1893), £1,978,250 The Company has paid in Claims upwards of £12,000,000 sterling

#### TITE DEPARTMENT.

Lee Policies an granted under any one of the following six prine pal plans I -ORDINARY WIT + PROFIT POLICIES, at moderate rates, with large and pro-

ressively more using bonuses
POLICIES AT 'COST PRICE," giving the largest possible Assurance at the

smillest imprediate outlay

III —TONTINE INVESTMENT POLICIES for a fixed sum during a term of years, and

The technical trees of bonus at the end of that term

IV -NON-PROFIT POLICIES, of use principally in financial transactions

V -DOUBLE ENDOWMENT ASSURANCES, a safe and profitable investment for annual sivings, or for those whose occupation would otherwise subject them to

VI -RENEWABLE TERM POLICIES, or temporary Assurances at minimum rates, ie newable without fresh medical exumination

The BONUSE3 declared have always been very large, and there is every prospect of then continuing so, because ill interest enried on the investments over and above 22 per cent will be at ulable for the profit fund

#### FIRE DEPARTMENT.

LOSSES OCCASIONED BY LIGHTNING will be paid whether the property be set on fite or not LOSS OR DAMAGE caused by Explosion of Coal Gas in any building insured will be mide good SEVEN YEARS' POLICIES granted on payment of Six Years' premiums

SAML J PIPKIN, Secretary

# ESTABLISHED 1809.

# NORTH BRITISH and MERCANTILE

# INSURANCE COMPANY.

Chief Offices

61, Threadneedle St. London. 64, Princes St. Edinburgh.

Branch Offices in all Important Centres.

TOTAL FUNDS

At 31st December, 1893,

OVER Eleven Millions STERLING.

£2,789,437.

Ninety per cent. of Life Profits divided amongst the Assured on the participating scale.

THE NEXT DIVISION WILL TAKE PLACE ON 31st DECEMBER, 1895.

Family Policies in various Forms
Policies payable during lifetime.
Premium ceasing at an agreed age.
Pensions, &c., &c.

Death Duty Policies.
Partnership Insurances.
Annuities on one or more lives.
Provident Insurances on Children.

# FIRE DEPARTMENT.

Property of nearly every description, at home and abroad, insured at the lowest rates Losses by Lightning, Damages by Explosion of Gas in buildings (other than Gas Works), made good Rents of Buildings insured. Special Reduced Rates for Long Term Policies

It is worthy of notice that while the Company transacts both Fire and Life Insurance Business, the Accumulated Funds of each Department are, by Special Act of Parliament, kept entirely separate and distinit, the funds of the one Department not being available for the obligations of the other. The Funds of each Department are accordingly, in this Company, separately invested

Frospectuses and full information may be obtained from the Chief Offices as above, or any of the Company's Agencies and Branches

#### COST PRICE. LIFE **ASSURANCE** AT

### METROPOLITAN ASSURANCE SOCIETY. LIFE

13, MOORGATE STREET, LONDON

Established 1835, for Mutual Assurance.

#### Ducctors

RICHARD B BARRON, PSQ GEORGE R BURNETT, ESQ IND VARD CALFIN, ESQ. RUSSELI | COIMAN, ESQ, Norwich HINRY W DAI GLISH, ESQ WILLIAM S. DI MON, ESQ.
RI HON A. B. FORWOOD, M. P., Liverpool
J. H. FON, ESQ., Wellington, Somerset WM GRANT, Esq., Portsmouth
ALEA P HOGAKIH, Esq., Aberdeen
WILLIAM C H HUNT, Esq. F HARWOOD LESCHER, LSQ S S ITOYN, JUN, ESQ, Binmingham WILLIAM C SCOTT ESQ WALLER B TIDD, ESQ

#### Medical Officers.

R CHMENT Licas, Esq., BS., 18, Finsbury Square, E.C. J. Kingsion Fowler, Esq., M.D., 35, Clarges Street, W.

Assistant Actuary-L M Simon, Lio Actuary-Arthur Prayson, Esq.

Sum Assured, £5,475,000.

Assets, £2,000,000.

31/6

31/6

21/-

12/6

5/6

23/6

23/6

15/~

9/-

4/

NO COMMISSION PAID AND NO AGENTS EMPLOYED EXPENSES OF MANAGEMENT UNDER 5 PERCENT OF INCOME NO SHAREHOLDERS TO PARTICIPATE IN PROFITS

ESTABLISHED 1837

# CAPITAL AND RESERVES, £2,440,000.

BO IRD OF DIPECTORS

Sn Andrew Itsk But, Chumm Principal And S D D Lieft -Col F D Gars Most Hon the MAROUS OF EXETER GRUNGL PILL, I ST

JAS S MACK, ESQ JP, DL Ford GILBERT KEN LDY Hon R C GROSVENOR HENRY WILLIAM RIPLEY, ESQ Rt Hon C Pelham Viliters, M P

MEDICAL OFICERS

PH PVI-SMITH, FSq, MD FRS, 48, Blook Street FM DLANK 1 AVLOK, FSq, MD, 20, Wimpole Street W Advinces made on Reversions, Life Interests, and on Personal Security in connection

with a Lite Policy

A perminent reduction of Six Per Cent made to the Medical Profession

103, Cannon Street, JOHN ROBERT FREEMAN, Manager & Secretary London, EC

#### The following Books are to be Sold Cheap, Carriage paid: 1 ERICHSEN'S SURGERY, 9th Ld, 2 Vols, 1025 Englavings 48/- for 33/~

POWER'S CARPENTER'S HUMAN PHYSIOLOGY 1 CHAYEAUX & ARLOING'S COMPARATIVE ANATOMY OF THE DOMESTICATED ANIMALS, 2nd English Ed, 585 Illustrations

1 ROBERTS' THEORY AND PRACTICE OF MEDICINE

1 MANUAL OF CLINICAL AND PRACTICAL PATHOLOGY, by WYNTER and WITHERLD 1 RAMSAY'S ELEMENTARY SYSTEMATIC CHEMISTRY

JOHN WRIGHT & CO., Printers and Publishers, BRISTOL.

# LEWIS'S PUBLICATIONS.

Roberts' Handbook of Medicine Ninth Edition Onodi's Anatomy of the Nasal Cavity, and its Accessory Sinuses By ST CLAIR THOMSON Plates 6s net Schimmelbusch's Aseptic Treatment of Wounds Hall's Diseases of the Nose and Throat 10s 6d Fenwick's Dyspepsia of Phthisis Anderson's Medical Nursing Second Edition 2s 6d. Osler's Charea and Choreiform Affections Kerr's Inebriety or Narcomania Third Edition Corfield's Dwelling Houses Third Edition Illustrations Parkes' Infectious Discases is 6d Goodhart's Common Neuroses Second Edition Powell's Diseases of the Lungs and Pleuræ Fouth Edition Gruber's Diseases of the Ear By Law and Jewell and Edition Burnett's Diseases of the Ear, Nose and Throat Two Vols 48s ne Crocker's Diseases of the Skin Second Edition Legg and Jones' Examination of the Urine Seventh Edition Allen's Handbook of Local Therapeutics 145 net Kenwood's Public Health Laboratory Work ios 6d Gray's Nervous and Mental Diseases Illustrations 215 Boyce's Text-book of Morbid Histology Coloured Plates Ringer's Handbook of Therapeutics Twelfth Edition Steavenson and Jones' Medical Electricity Second Edition Buxton's Anæsthetics Second Edition Wethered's Medical Microscopy Fuchs' Text-book of Ophthalmology Skene's Diseases of Women Second Edition 103 6d Williams' Cancer of the Uterus PlatesParkes' Hygiene and Public Health Third Edition ros 6d. Lewis's Pocket Medical Vocabulary Second Edition Hill and Cooper's Syphilis Second Edition Murrell's Massotherapeutics Fifth Edition 45 6d Murrell's What to do in Cases of Poisoning Seventh Edit on 35 Gil Carter's Elements of Medicine Sixth Edition Swanzy's Diseases of the Eye Fifth Edition ios 6d Lusk's Science and Art of Midwifery Fourth Edition 185 Lewers' Diseases of Women Fourth Edition 10s 6d Lewis's Temperature Charts 50s per 1,000, 7s per 100, or 1s per doz Lewis's Nursing Charts 20 for is, 100, 3s 6d, 1,000, 25s, post file Lewis's Diet Charts 6s 61 per packet of 100 charts, by post 6s 101d Chart for Recording the Examination of Urine 40s per 1,000, 25s per 500, 15s per 250, 7s 6d per 100, 15 per 10

<sup>\*</sup> Catalogue of Mr. Lewis's Publications Post Free on application.

# YOUNG J. PENTLAND'S LIST.

Fasciculus viii, ready February, pince 215, sold only by subscription Remaining Fasci cult to be issued at intervals of two months

ATLAS OF THE DISEASES OF THE SKIN In a series of Illustrations from Original Drawings with Descriptive Letterpress. By H RADCLIFFE CROCKER, M.D., F.R.C.P., Physician to the Department for Diseases of the Skin, University College Hospital, Physician to the East London Hospital for Children, Examiner in Med cine at Apothecaries' Hall, I ondon

\*.\* Detailed Prospectus will be forwarded on application Subscribers' names can now be received Beginning of New Volume Subscription One Guinea per annum (in advance), post free

THE JOURNAL OF PATHOLOGY AND BACTERIOLOGY Federed with the Collaboration of Distinguished British and Foreign Pathologists, by GLRMAN SIMS WOODHEAD, M.D. Fedin, Director of the Laboratories of the Ro il Co'leges of Physicians (London) and Surgeons (England)

Now Ready, Volumes First and Second, Evo, about 650 pp each, Illustrated with Full-page Plates and Engravings, price 125 6d each net, carriage free

EDINBURGH HOSPITAL REPORTS In a Series of Clinical Papers and lectures Published under the Supervision of a Committee representing the Various Institutions Edited by G A GIBSON, M D, D Sc, C W CAIHCARI, M A M B, JOHN THOMSON, M D, and D BERRY HARI, M D

Now Ready, Second Edition, Revised and Enlarged, 8vo, cloth, pp xvi, 682, with Coloured Illustrations from Original Drawings, price 255

DISEASES OF THE THROAT, NOSE & EAR By P McBRIDE. M.D., F.R.C.P. Ed., Lecturer on Diseases of the Eai and Throat, Edinburgh School of Medicine, Anial Surgeon and Laryngologist, Poyal Inhrmary, Edinburgh, Surgeon, Edinburgh Ear and Throat Dispensary [Pentland's Medical Series, 1 of 111]

Now Ready, Fourth Edition, thoroughly Revised and mostly Rewritten, 8vo, pp xvi, 676, with Colonied Illustrations, price 218

DISEASES OF THE SKIN A Manual for Practitioners and Students

By W. ALLAN JAMIFSON, M. D., F.R. C.P. Ed., Physician to the Skin Department, Ldinburgh Royd Infirmary [Pentland's Medical Series, Vol. 1] Now Ready, Svo, cloth, pp vvi, 503, price 16s

TEXT-BOOK OF ABDOMINAL SURGERY A Clinical Manual for Practitioners and Students By SKENE KLIIII, FR CS Ed, assisted by GFORGE E KLIIII M B

Now Ready, Crown Sto, cloth, pp xvi, 262, with numerous Wood Engravings, price 3s 6d FIRST AID TO THE INJURED AND MANAGEMENT OF THE SICK An Ambuluace Handbook and Elementary Manual of Nursing for Volunteer Bearers and Others By E J LAWLESS, M D, Surgeon Major, 4th V B East Surrey Regiment

THE TREATMENT OF WOUNDS, ABSCESSES AND ULCERS By W WAISON CHLYNF, MB, FRS, Professor of Surgery King's College. London

Now Ready, Second Edition, thoroughly Revised and Enlarged, 810, cloth, pp 311, 728. Illustrated with Wood Engi evings and Coloured Plates from Original Drawings, price 25s

SEASES OF THE EYE A Practical Treatise for Students of Ophthelmology By GFORGE A BERRY, MB, FRCS Ed, O hthalmic Surgeon, I dinburgh Royal Infirmary, Lecturer on Ophthalmology, Royal College of Surgeons, Edinburgh DISEASES OF THE EYE

Now Ready, large 810, cloth, pp 311, 1080, price 248
THE PRINCIPLES AND PRACTICE OF MEDICINE Designed for the Use of Prictitioners and Students of Medicine By WILLIAM (ISLER II D. FRCP, Professor of Medicine in the Johns Hopkins University, Physician in Chief to the Johns Hopkins Hospital, Baltimore

YOUNG J. PENTLAND, Edinburgh: 11, Teviot Place. London: 38, West Smithfield, E.C.

### A NEW WORK for MEDICAL STUDENTS & PRACTITIONERS.

# DISSECTIONS ILLUSTRATED.

A Graphic Handbook for Students of Human Anatomy

By C. GORDON BRODIE, F.R.C.S.

Senior Demonstrator of Inatems, Meidlesex Hospital Medical School, Assistant Surgeon North West London Hospital

With Plates Drawn and Lithographed by PERCY HIGHLEY IN FOUR PARTS

Part I.—THE UPPER LIMB.—With 17 Coloured Plates (two-thirds natural size) and to Diagrams

Imperial 800, Served in Wrapper, fine Es bd

"The plates are EXCFIDINGLY WFIL DEEDM and placed on the stone explanatory letterpress is clear and concre"—I he Lancet
"This work meets a distinct wast "—Ed abuigh Mea cal Journal
"We have to call attention to the excellence of the work "—Glargow Medical Journal
"The scheme is admirably carried out and the plates most reliable "—Guy's loop Garette
"The work is excellent"—Veuical Reporter The

### Part II.—THE LOWER LIMB.—With 20 Coloured Plates (two-thirds natural size) and 6 Diagrams

Imperial 800, Sewed in Wrapper, price 10s

"This work can be confidently recommended to those who wish at a glance to refresh their anatomical knowledge "-British Medical Journal"
"This work meets a distinct want "-Edinburgh Medical Journal,

### Part III .- THE HEAD, NECK, AND THORAX .- With 20 Coloured Plates (two-thirds natural size) and 8 Diagrams

Imperial 800, Sewed in Wrapper, pr ce 108

"Satisfy every requirement both for the home-reading of the student and for occasional reference during the leisure of the busy practitioner"—Lancet
"An invaluable handbook"—Nature

### Part IV.—THE ABDOMEN.—With 16 Coloured Plates and 8 Diagrams, will appear shortly

TWELFTH EDITION Revised throughout, with numerous additions, 822 pp., post 8vo, 10/6

## OF TERMS USED IN MEDICINE & THE COLLATERAL SCIENCES. Revised and Enlarged.

By J. A. P. PRICE, B.A., M.D. Oxon.,

Assistant Surgion to the Royal Berkshire Hospital, late Physician to the Royal Hospital for Children and Women

"I his well-known work "-The Lancet

"As a handy reference volume for the physician, surgeon, and pharmacist it will prove invaluable '-Pharmaceutical Journal

"From considerable experience of Hoblyn's Dictionary we are able to say that it has the rare merit of supplying in almost every case what you have a right to expect in consulting it "-Glasgow Medical Journal

LONDON: WHITTAKER & CO., Paternoster Square.

Recently Published, with Illustrations, demy 8vo, 5s

# THE TREATMENT OF

# LATERAL CURVATURE OF THE SPINE.

WITH APPENDIX ON THE TREATMENT OF FLAT-FOOT

# BY BERNARD ROTH, F.R.C.S.,

Tellow of Marral Secrets of London, Member of the Climical and Pathological Societies and of the Medical Officers of Schools Association, Corresponding Member of the Association and Office Association.

### Motices of the Press.

"The small volume before us will, nowever, be more convenient for study, and will be specially welcome as giving a more detailed account of the plan of treatment (the author) carries out than is to be found elsewhere. It is to be hoped, too, that the publication of this little book will do something to check the unscientific and often disastrous treatment of lateral curvature by spinal supports and prolonged rest "—Lancet"

"This book is a useful one "-British Medical Journal

"(The author's) plan of improving the stiength of the muscles by regular gymnastic exercise has certainly much to recommend it "-Practitioner

'This is an interesting book on an interesting subject written in a clear, inclive style, and utterly devoid of the literary garbage known as 'padding'"—Liverpool Medico-Chirungual Journal

"The photographs in the first part are excellent"—International Journal of Medical Sciences

# LONDON: H. K. LEWIS, 136, Gower Street, W.C.

LIVINGSTONES' MED	ICAL	HANI	DRO	OKS
SYMINGTON'S TOPOGRAPHICAL ANATOMY	OF THE CE	IIID -	-	- £2 2s
EDINBURGH MEDICAL SCHOOL CALENDA	R, by post	-	-	- 2/3
GREVILLE'S CHEMISTRY, with Tables, 2nd	Edition -	-	-	- 6/-
MILNE'S MIDWIFERY, 2nd Edition -	<del>-</del>		<del>.</del> .	- 12/6
HUSBAND'S (AUBREY) FORENSIC MEDICINE	& PUBLICE	IEALTH, 6	th $Edition$	n, net 10/6
Do PRACTICE OF MEDICINE, 4th J	Edition -	-	-	- 7/6
Do POCKET PRESCRIBER -	<del>"</del>	•		net 1/6
DO EXAMINATION OF THE URIN	E, 3rd Editio	n -	-	net 1/-
HUGHES' MOTOR NERVES		•	-	- 1/-
Do NERVES OF THE HUMAN BODY	<i>T</i>	-	•	- 7/6
Do MANUAL OF SURGICAL ANATO	MY -	· •	-	net 4/6
CROOM'S MINOR GYNÆCOLOGICAL OPERA	${f TIONS}, 2nd$ .	Edition	-	- 6/-
CRAIG'S MATERIA MEDICA, 5th Edition		-	-	net 1/-
Do POSOLOGICAL TABLES, New Editi	on	-	-	net 1/-
M'LACHLAN'S APPLIED ANATOMY SUR	GICAL, MED	CAL, AND	OPERAT	TVE,
3rd Edition, 2 Vols WHITAKER'S THE BRAIN AND SPINAL COI			-	- 18/-
WHITAKER'S THE BRAIN AND SPINAL CO	RD, with Plat	es, $2nd Edi$	tion	net 5/-
DO NOTES ON PATHOLOGY, GEN	RIBAT: -	-	-	net 4/6
ANATOMY—(Catechism Series)—Part I. Upper	EXTREMITY.	Part 2, I	OWER)	net 1/-
EXTREMITY, Part 3, HFAD AND NECK, Part	4, ABDOMEN,	Part 5, TH	ORAY.	each 1/-
Pare b. Bones and Joines			_	eacn
PUBLIC HEALTH-(Gatechism Series)-Part 1, W LATION, Part 3, Shwage, Part 4, VITAL So	VATER, Part	2, Air and V	ENTI-)	net 1/-
LATION, Part 3, SEWAGE, Part 4, VITAL ST	CATISTICS, Pa	at 5, MED	ICINE,	each
FOOD, &C		· -	- ')	eacii
QUESTIONS IN MEDICINE-Two Parts -		-	each,	net 1/-
CHEMISTRY-(Catechism Series)-Two Parts		-	each,	net 1/-
PHYSIOLOGY—(Catechism Series)—Eight Parts		-	each,	
WEBSTER'S PUBERTY AND THE CHANGE (	OF LIFE .	-		net 1/-
MATERIA MEDICA—(Catechism Series)—Six Pai	rts	-	each.	
JOHNSTONE'S BOTANY NOTES, 4th Edition	-	-		net 2/-
Do ZOOLOGY NOTES		-		net 3/6
MARTIN'S YELLOW FEVER	•	•	-	net 46
HANDBOOK OF GYNECOLOGY, Illustrated		-	-	- 5/-
WHEELER'S PRACTICE OF MEDICINE -			-	- 10/6
				,-

E. & S. LIVINGSTONE,
Booksellers and Publishers, 15, Tevict Place, EDINBURGH.

# The LANCET FOR 1895

PUBLISHED EVERY FRIDAY MORNING PRICE 7d , by post 72d

THE LANCET for 1895 will contain LEADING ARTICIES and ANNOTATIONS on Professional, Scientific, Social, and General Topics, copious Abstracts and numeious verbatim Reports of LLCTURES relating to Medicine, Surgery, Obstetrics, and cognate subjects, ORIGINAL ARTICLES contributed by Medical Men residing in all parts of the world, CLINICAL NOIES on cases possessing features of interest from a Medical, Surgical, Obstetricil, or Therapeutical point of view, the HOSPITAL MIRROR of interesting and instructive cases of Disease and Injury coming under the observation of Physicians and Surgeons in British and Foreign Hospitals, REVIEWS and NOLICEs of BOOKS, English and Foreign, Descriptions of NEW INVENTIONS relating to the BOOKS, English and Foreign, Descriptions of NEW INVENTIONS relating to the Profession or calculated to promote the Public Health, Reports of COMMISSIONS, ANALYTICAL, SANITARY and GENERAL, issued for the purpose of exposing exits and defects injurious to the health and well being of particular classes of the people or of the community at large, ANALYTICAL REPORTS of Drugs Foods, Reverages, &c. 1 Record of PHARMACOLOGICAL PROGRESS and RESEARCH, Comments on and Analyses of the REPORTS of MIDICAL OFFICERS of HEALTH and SANITARY AUTHORITIES, together with Special Articles on HYGIENIC MATIERS, 1 Record of the MILITARY, NAVAL, and VOLUNIEER MEDICAL SERVICES, also of Affairs of Medical Interest dealt with by PARLIAMENT, OBITUARY NOTICES of Deceased Members of the Profession and of Eminent Scientific Men, Discussion of Questions affecting the ETHICS of the Profession, MEDICAL NEWS AND CORRESPONDENCE.

Questions affecting the ETITICS of the Frotession, INDESCRIPTION OF CORRESPONDENCE.

THE LANCET is, without increased cost to Subscribers, permanently enlarged to ONE HUNDRED AND TWENTY PAGES, giving additional space for Scientific Contributions, and for Announcements in its Advertisement columns

Contributors can now airange for reprints of their articles

Lectures, Original Articles, and Notices of Inventions are fully illustrated with Coloured Plates, Engiavings, and Woodcuts when desirable

The Propiletors will continue to pay the postage surcharge upon overweight Foreign Editions, without any increase in the rate of Subscription

Arrangements in the Advertisement Department are made for facilitating the reception and forwarding of Answers in reply to Advertisements appearing in TI/E LANCEI

The INDEX to ADVERTISEMENTS with NAMES of ADVFRISERS, and

the purport of their announcements, a plan originating with this Journal, has been found to be highly appreciated, and will be continued

#### SUBSCRIPTION

SUBSURIFIION.						
Post Free to any	, P	art o	f 1.	he T	Init	ed
Kingdom		_				
Twelve Months	_	-	_	£١	12	6
Six Months -	_	_		0		
Three Months	-	-		Ó		2
Post Free to the	C	ontin	ent,	Col	lonn	es,
United States,	Inc	dia, C	hin	a, a	nd c	ıll
Places Abroad		-				
Twelve Months	_	-	_	£١	14	8
Six Months -	-	-	-	0	17	4
Three Months	-	-	-	Ö		8
Subscriptions (white	ch n	nay co	mm	ence	at a	ny
tıme) are payabl						
Cheques and Postal	Orc	ders (c	rosse	ed "I	Lond	on
and Westminst	:e1	Bank	. V	Vestr	nıns	ter
Branch ") should	be	made	pav	able	to M	Ir
CHARLES GOOD,	M	anagei				

### ADVERTISING.

Publications, Official, and General Announcements -		5	0
Trade and Miscellaneous -	0	4	6
(Seven Lines and under			
Every additional Line	´ 0	0	6
Ouarter Page	1	10	0
Halfa Page	2	15	0
An Entire Page	5	5	0
Front Page, per Line -	Ò	1	6
Second Page " -	Ó	- 1	0
Back Page	lo	0	Ô

The Manager cannot hold himself respons ible for the return of testimonials, &c, sent to the office in reply to Advertisements, copies only should be forwarded

NOTICE Advertisers are requested to observe that it is contrary to the Postal Regulations to receive at Post Offices letters addressed to initials only

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday accompanied by a remittance

Terms for Serial Insertions may be obtained of the Manager, to whom all letters relating to Advertisements of Subscriptions should be addressed

TILE LANCE I can be obtained and Advertisements received at all Messrs W H SMITH & SON's, and other Railway Bookstalls, and of all Booksellers and Newsagents

# QUARTERLY MEDICAL JOURNAL.

FOR

YORKSHIRE AND ADJOINING COUNTIES

ANNUAL SUBSCRIPTION, 7/-. SINGLE COPIES, 2/- EACH.

EDITED FOR THE PROMOTERS

BY

SIMEON SNELL, FRC.S, ED, &c.

ASSISTANT EDITORS-

D. BURGESS, MA, MB, CANTAB
W T COCKING, MD, LOND
W DALE JAMES, MRCS
ARTHUR J. HALL, BA, MB, CANTAB,

#### IN ASSOCIATION WITH

A W MAYO ROBSON, FRCS,

LIFLDS,

P BOOBBYER, MB, MS, DURH,

NOTTINGHAM

J A SOUTHERN, LRCP, LOND, &c.,

DFKBY

PRIESTLEY I EECH, MD, BS

LOND, FRCS HALIAN

F W ROBINSON, MD, MRCS,

HUDDLASTIFLD

B A WHITELEGGE, BSc, MD,
WAREFIELD
WAREFIELD
WH JALLAND, FRCS,
E H HOWLETT, FRCS,

HUIL ADOLPH BRONNER, M D, M R C S, BRADFOAD E MANSLL SYMPSON, M A, M D.

LINCOLN

CANTAB,

All communications relating to the literary part of the Journal, Books for Review, and Exchanges, should be directed to the EDITOR, 17, Eyre Struct, Sheffield Pharmaceutical Preparations, &c, intended for notice in the Journal, should be forwarded to Mr W Dale James, Glossop Road, Sheffield

All communications relating to Advertisements should be addressed to Dr Arthur Hall, Glossop Road, Sheffield, or to the Printers, Messis J Bale & Sons, 87—89, Great Titchfield Street, London, W

SHEFFIELD PAWSON & BRAILSFORD.

EDINBURGH & LONDON YOUNG J PENTLAND.

LONDON JOHN BALE & SONS

# Medical Press and Circular.

ESTABLISHED 1838.

(The Oldest Medical Journal in existence with one exception.)

I T is one of the three recognised leading Medical Journals, numbers among its contributors the most able writers and acknowledged authorities, is widely read, and influentially supported

Its Foreign Correspondence and "Operating Theatres" are special features of the Journal, at the same time it devotes more space to Irish and Scotch Medical affairs, Society Reports, &c , than any other Journal

Its tone is fearless and strictly impartial, and to the General Practitioner it is of special interest, immediate attention and space being always accorded to matters affecting his interests, and to papers and letters of practical moment

Being published on Wednesdays, it forms as it were a necessary link with the two leading Saturday Journals. The Subscription, post free, per annum, is only One Guinea for the British Islands.

A Special Edition is printed on thin plate paper for Foreign Subscribers at Li 35 6d per annum, post free.

SPECIMEN COPIES SENT POST FREE ON APPLICATION

As an Advertising Medium it has been patronised continuously by all the leading houses for the last half century. Terms on application to the Publishers—

# BAILLIÈRE, TINDALL & COX,

20 & 21, King William St., Strand, LONDON.

An English Doctor in INDIA writes —"We look forward to The

The Cheapest and most readable Weekly Medical Journal.

TWENTY-THIRD YEAR OF ISSUE

THE

# MEDICAL TIMES AND HOSPITAL GAZETTE.

A WILKLY JOURNAL OF MEDICINE AND SURGERY FOR PRACTITIONERS AND STUDENTS

The Official Journal of the Incorporated Medical Practitioners' Association.

ENLARGED AND IMPROVED.

Published every Saturday. Price Twopence. Post Free 2½d.

The MEDICAL TIMES AND HOSPITAL GAZETTE is the cheapest weekly Medical Journal in the United Kingdom, and will be found to contain all the Medical News of the week, written in a most readable and attractive style

A feature of especial value to the busy Medical Man is the

# SHORT PRACTICAL CLINICAL LECTURES

which appear every week from Specialists on the Practical Treatment of Disease

Annual Subscription, including postage, for the United Kingdom, 8/-, 1 or Place, Abroad, 12/6

Specimen Copy sent post free on receipt of post card giving name and address

APPLY TO

# F. J. REBMAN, PUBLISHER,

"The Medical Times and Hospital Gazette,"

11, Adam St., Strand, LONDON, W.C.

# BIRMINGHAM MEDICAL REVIEW:

# A MONTHLY JOURNAL OF THE MEDICAL SCIENCES. 64 pp., price 6/- per annum, post free.

LDITED BY

O J KAUFFMANN, M D LOND, M R C P,

JAS W RUSSELL, MD CANTAB, MRCP
Assisted by the folio ving Editor al Committee

GII BERT BARIIN, M B, F R CS
H LANGLEY BROWN, F R C S
PAUL M CHAIMAN M D, F R C P
W CHARNIE, M D
W COLLIEN, M D, F R C P
LDWARD DEANFSIY, M D, F R C S
HERD EDGE, M D, F R C S, M R C P
ARIHUE FORWELL, M D, F R C P
F M HAIG, M D
W F HASLAM, F R C S
GEO HEATON, M B F R C S
A BOSIGGE HILL, M D
JORDAN LLOYD, M B, F R C S
AIBERT LUCAS, F R C S
C A M SCMUNY, M D
H MANLEY M B
FRANK MARSH. F R C S
CHRISTOPHER MARIIN, M D F R C S
BENNEIT MAY, M B, F R C S
J T J MORRISON, M B F R C S

E N NASON, M B
I LOVD OWEN, F R C S I
J PIELLASEN, L R C P, M R C S
C E PURSLOW, M D, M R C P
GUTHRIE RANKIN, M D, F R C P
J R RAICLLIFE, M B
GFO RFID, M D
EDWIN RICKARDS, M B, F R C P
ROBERLI SAUNDEY, M D, F R C P
I SADNEL SHORT, M D, M R C P
J LIOVEL STRETION L R C P, M R C S
C W SICKLING, M D, M R C P
J LAWSON LAIL, M D, F R C S
JOHN W TAYLOR, F R C S
WM 1HOMAS, M B, F R C S
THOS W THERSTIPLD, M D, F R C P
1 LAW WIEB, L R C P, M R C S
E, WOOD WHILL, M D
F T WILSON, M B F R C P
1 SLACEY WILSON, M D M R C P
1 HOS WILSON, M D M R C P

THIS Journal has now been in existence for twenty years and has recently obtained a large increase in its circulation. It will be found to be an excellent medium for advertising all matters of interest to the Medical Profession, not only in the Midland district but throughout the Country.

The Scale of Charges for Advertisements is—Whole Page 21/-, 1-Page 12/-, 1-Page 10/-, this is subject to a discount of 25 per cent for twelve months' insertions

All business communications to be addressed to the Publishers-

HALL & ENGLISH, Printers,

No 71, HIGH STREET,

BIRMINGHAM

# INDIAN Medico-Chirurgical Review

A MONTHLY JOURNAL AND REVIEW OF INDIAN AND FOREIGN MEDICINE AND ALLIED SCIENCES.

### EDITED BY

# N H. CHOKSY,

Medical Officer in Charge, Homeless Leper Asylum, Matunga and Municipal Hospital for Infectious Diseases, and Surgeon to the Municipal Fire Brigade, Bombay

Price 1/6. Annual Subscription (including postage), 16/-.

#### CONTENTS

Original Articles, Bombay Post-Graduate Lectures, Reports of Local and other Medical Societies, Special Articles on Sanitation in India, Reviews and Notices of Books, &c, Leading Articles and Editorials on Scientific and Local Subjects, and an extensive selection from current Medical Literature of India, Europe, America and Australia

TO ADVERTISERS—The "Indian Medico-Chirurgical Review" is an excellent medium for attracting the attention of the Indian Medical Profession, as it has a very wide circulation in all parts of India

All communications regarding the Journal to be addressed to Messrs BAILLIÈRE, TINDALL & COX.

KING WILLIAM STREET, STRAND, LONDON, or to the Office of the Journal situated at TARDEO, BOMBAY (INDIA)

# BRISTOL

# Medico - Chirurgical Journal.

Permanent Enlargement without increase of price.

Published Quarterly. Price 1/6
ANNUAL SUBSCRIPTION, POST FREE, 5/-.

#### EDITOR

# R. SHINGLETON SMITH, M.D., B.Sc.,

Physician to the Royal Infirmary, and Professor of Medicine in University College, Bristol,

With whom are associated

- J MICHELL CLARKE, MA, MD, Physician to the Bristol General Hospital, and Lecturer on Practical Physiology and Histology in University College, Bristol
- F R CROSS, MB, FRCS, Ophthalmic Surgeon to the Bristol Royal Infirmary, and Surgeon to the Bristol Eye Hospital
- L M GRIFFITHS, Assistant Editor
- W H HARSANT, FRCS, Surgeon to the Bristol Royal Infirmary
- B M H ROGERS, BA, MD, BCh, Physician and Pathologist to the Hospital for Sick Children and Women, Bristol, Editorial Secretary

Books for Review and Exchange Journals should be sent to the Assistant Editor, L M GRIFFITHS, 9, Gordon Road, Bristol

Communications referring to the delivery of the Journal, Subscribers' Names, and Orders for Advertisements, should be sent to the Editorial Secretary, B M H ROGERS, M D, II, York Place, Bristol

Bristol J W. ARROWSMITH.

LONDON J. & A CHURCHILL

### VOLUME IX.

# THE JOURNAL OF LARYNGOLOGY, RHINOLOGY AND OTOLOGY.

An ANALYTICAL RECORD of CURRENT LITERATURE RELATING

THE THROAT, NOSE, AND EAR.

### EDITED BY

R. NORRIS WOLFENDEN, M.D. Cantab., JOHN MACINTYRE, M.B. Glasgow.

ANI

# DUNDAS GRANT, M.A., M.D., F.R.C.S. Eng.,

WILH THE ASSISTANCE OF

DR SANDFORD (Cork), DR MILLIGAN (Manchester),

AND WITH THE CO-OPERATION OF

DRS BARON (Bristol), R BOTEY (Barcelona),

CARTAZ (Paris), BRYSON DELAVAN (New York),

DESISPUL (St Petersburg), GRAZZI (Florence), GUYE (Amsterdam), HICGUET (Brussels), MIDDLEMASS HUNT (Liverpool),

VALLRIUS IDELSON (Beine), Joal (Paris), Karwowski (Warsaw), A B Kelly (Glasgow),

LACOARRET (Toulouse), LAKE (London), LICHTWITZ (Bordeaux), JOHN N MACKENZIE (Baltimore), G W MAJOR (Montreal),

Prof Massei (Naples), Meyjes (Amsterdam), E Meyer (Berlin), Michael (Hamburg), Holger Mygind (Copenhagen),

W Porter (St Louis), Robertson (Newcastle), Sajous (Philadelphia), Sendziak (Waisaw), Sota (Seville), and St Clair Thomson (Loudon)

# Published Monthly.

# F. J. REBMAN, 11, Adam Street, Strand, London.

ENTERED AT STATIONERS' HALL

PRICE TWO SHILLINGS.

Prepaid Annual Subscription, Twenty Shillings, Post Free, or Five Dollars

# MEDICAL MAGAZINE:

A Monthly Journal of Medicine, Surgery, and Allied Sciences.

EDITED BY GEORGE J WILSON, MA, MD With assistance in Special Departments

-----

THE MEDICAL MAGAZINE is a Monthly Journal devoted to the interests of the Piofession, and in several respects occupies a field of its own A special feature of the Magazine is the space devoted every month to the Army and Navy Medical Departments Special attention is also given to questions relating to Medical Defence.

# -00000000-Among recent Contributors to the Magazine are:—

GUIDO BACELLI, M D E H CARTWRIGHT, M D H B DONKIN, MD T GARRETT HORDER, MRCS. G. V POORE, MD SAMUEL HYDE, M D F BOWREMANN JESSETT. FRCS SIR GEORGE JOHNSTON

J KESER, MD SURG-GEN SIR W MOORE, KCIE WALTERG SPENCER, FRCS SAMUEL WILKS, M D BERTRAM WINDLE, M D BURNEY YEO, M D

# PUBLISHED FOR THE

# Medical Magazine Co., Limited, at 140, STRAND, LONDON, W.C.

PRICE, 2/-; YEARLY SUBSCRIPTION, Post Free. 20/-.

Orders should be sent to the MANAGER, 140, Strand, LONDON.

### GRIFFIN'S MEDICAL SERIES.

### FIBROID DISEASES OF THE LUNG, Including FIBROID PHTHISIS.

BY SIR ANDREW CLARK, BART, MD, LLD, FRS, Lace Consulting Physician & Lec'uver on Clinical Medicine to the London Hospital, and

W | HADLEY, M D, and ARNOLD CHAPLIN, M D,

-1ssistant Physicians to the City of London Hospital for Diseases of the Chest With Eight Plates in Colouis Price One Guinea net

"It was due to Sir Andrew Clark that a resmanent record of his most important pure of parthological and clinical work should be published. A volume which will be fight a value by every clinical physician."—British Medical Journal

#### ANATOMY AND PHYSIOLOGY

Human Anatomy Prof Macalistle, Human Physiology Fourth Edition Prof. Landois & Stikling 42s

Embryology. Prof Haddon 18s

### DIAGNOSIS AND TREATMENT OF DISEASE.

Clinical Diagnosis Prof V JAKSCH and JAMES CAGNEY, M D Second Edition 25s

Clinical Medicine. Judson Bury, M D 21s

"Dr Judson Bury's 'Clinical Medicini' is the latest of the Splendid Striffs and Company have been the means of placing in the hands of the profession"—Dublin Medical Journal

Gout Sir Dyce Duckworth, M D

Rheumatism Archd Garrod, M D 2ls

Diseases of Childhood (Medical)
H BLYAN DONKIN, M D 16s

Diseases of the Eye Prof MEYER and F FFLGUS, M D 25s

Diseases of the Heart (Diagnosis) A E Sanson, M D 28s

Diseases of the Skin Professor
M'Call Anderson, M D Second Edition 25s

### THE BRAIN, NERVOUS SYSTEM, AND LEGAL MEDICINE

The Brain and Spinal Cord Piof Victor Horsity FRS 10s 6d The Central Nervous Organs

Prof. OFFESTLINER and AIRY HIII, M D 25s Peripheral Neuritis Prof Ross

med Jupson Blay, M D 21s

Mental Diseases Bevan Lewis,

MRCS 28s

Asylum Management CHARLES MIRCIFR, M D 16s

Forensic Medicine and Toxicology Piof Divon Minn, M D 21s

Poisons Their Effects and Detection A WYNTER BLYTH, M R C S
Bairister-at-Law Third Edition revised and enlarged. [At Press]

### SURGERY.

Ruptures J F Macready, FRCS 25s Surgery of the Kidneys Knows-1by Honylon, FRCS 5s

Surgery of the Spinal Cord WM
THORBURN, FRCS 12s 6d
Railway Injuries H. W PAGE,
FRCS 6s

\*\* Other Folumes in preparation Illustrated Catalogue sent post free on application

London: CHAS. GRIFFIN & Co., Ltd., Exeter St., Strand.

### THE SCIENTIFIC PRESS.

Perry Orio, w the illestrated, Clothe, 128 6d net

MEDICAL HISTORY FROM THE EARLIEST TIMES. By E I WITHINGTON, MA, MB, Oxon An exhaustive history, treated in an interesting manner, and likely to be of exceptional interest to members of the

Profession and Students

IMPORTANT NEW HAND-BOOK OF MIDWIFERY

18mo, profusery illustrated with Ori, nat Cuts, Tables, etc., about 200 pp, handsomely bound in Feather free by

A PRACTICAL HAND-BOOK OF MIDWIFERY. By FRANCIS W. N. HALLING, M.D. A practical manual produced in a portable and convenient form for reservance. Both to the Profession and to Students and to Midways and Nurses it is recommended for its compactness, conciseness, and clearness

"Mr Burdett's monumental work or Hospitals"-films

In 1 on Volumes, with a Portfilt of Plans, Cloth extra, Esselled, Royal 800, Gilt 10p, price &3 (, compete HOSPITALS AND ASYLUMS OF THE WORLD. The

Origin, History, Construction, Administration, Miningment, and Legislation with Plans of the chief Medical Institutions accurately drawn to a uniform scale, in addition to those of all the Hospituls of London in the Jubilee year of Queen Victoria's reign. By Hinky C. Butdriat, Author of "Cottage Hospitals," "Accounts, Audit, and Lenders," etc., etc., etc.

Published every year, enlarged to about 900 pp, Crown Sto, Cloth Gilt, price 58

BURDETT'S HOSPITAL AND CHARITIES ANNUAL: Being the Year Book of Philanthropy Containing a Review of the Position and Requirements of the Voluntus Churines, and an Is character Record of Hospital and Churt ble Work for the Yea I twill also be found to be the most Useful and Rebuble Guide to British, Colonial, and American Hospitals, Dispensaries, Nursing and Convalescent Institutions and Asylums Futted by Henry C Burdlett

LONDON: THE SCIENTIFIC PRESS, Limited, 428, STRAND, W.C.

"Each of the papers in Science Progress is an important addition to scientific literature" -Nature

#### SCIENCE PROGRESS:

A Monthly Review of Current Scientific Investigation. Edited by J BRETLAND FARMER, M A, with the Co operation of an Editorial Committee

Pilce HALF-A-CROWN FA-CROWN Subscription Price 25s per annum, post free Handsome Cloth Boards, over 500 pp. Now ready. Price 16s

Somme Progress is of especial interest to Medical men, who are enabled by its articles to keep thoroughly abienst of the fruits of modern research in the higher branches of the Medical Sciences

Offices-428, STRAND, LONDON, W C.

### HOSPITAL

An Independent Journal of the Medical Sciences and Hospital Administration,

With which is issued Weekly a SPECIAL SUPPLEMENT FOR NURSES Published wery Saturday PRICE TWOPENCE Ainth Year of Publication

TERMS OF For the United Kingdom 10s 6d per annum, possible SUBSCRIPTION: For the Colonies and Abroad 15s 2d. ,,
Or may be had in Monthly Parts Subscriptions may commence at any time 10s 6d per annum, post free 15s 2d.

"THE HOSPITAL" aims at supplying the MEDICAL PROFFSSION with reliable intelligence on the most interesting and letest developments in the Medical and Clinical World, put into concise form by the leading authorities of the day

Second Edition Price 10s 6d

TREATISE

With much additional matter, in One Volume, post 8vo with Chromolithographs, and over Sixty Illustrations, &c.

### By GREVILLE MACDONALD, M.D. Lond...

Phys to the Throat Hosp, Golden Square, W, Assist. Phys for Dis of the Throat, and Lecturer on Dis of the Throat and Nose, King's Coll Hosp

THE LANCET, June, 1892

'It is distinctly an advantage to have an opportunity of studying the methods of diagnosis and of treatment which are followed by one who has had great facilities of working at this subject. The book literally bristles with practical hints which can be applied by all who are willing to devote the time to acquire sufficient devicity.

LIVERPLOL MEDICO CHIRURGICAL JOURNAL, July, 1892
"We consider the work a most complete and thoroughly practical account of the present state of rhunology"

A. P. WATT & SON, 2, Paternoster Square, LONDON, E C

Third Edition. Adapted to the New British Pharmacopæia, 1885 Medium 8vo Price 218, or in 2 vols, 228 6d

#### TEXT-BOOK THERAPEUTICS, OF PHARMACOLOGY, AND MATERIA MEDICA

By T LAUDER BRUNTON, M D, D Sc, F R S Fellow of the Royal College of Physicians, Assistant Physician and Lecturer on Materia Medica at St Batholomew's Hospitil, Eximiner in Materia Medica in the University of London, in the Victoria University, and in the Royal College of Physicians, London, late Examiner in the University of Edinburgh Adapted to the United States Pharmacopæia by F H WILLIAMS, M D Boston, Mass

"It is simply a mine of wealth both for students and piacitioners. It is thoroughly

"It is simply a mine of wealth both for students and placifioners. It is thoroughly practical and thoroughly reliable is undoubtedly the best treatise on the subject in the English language"—British Medical Journal
"A work which marks a distinct epoch, a turning-point in the history of medicine. It is not a mere compilation, but it is essentially a new departure, breaking away from well-worn tracks into a new and almost unknown region"—Medical Times and Gazette

#### By the same Author DISORDERS OF DIGESTION THEIR CONSEQUENCES AND TREATMENT

This work contains, in addition to the Leitsomian Lectures, a number of other papers by the Author on similar subjects 8vo, ros 6d
"Distinguished by accurate observation and original thinking, these papers have been

largely instrumental in moulding current medical opinion in regard to many of the subjects with which they are concerned "—Edinburgh Medical Journal" "We can cordially recommend the volume, as one which combines much practical and technical information and sound common sense"—London Medical Record

### INTRODUCTION TO MODERN THERAPEUTICS.

Being the Croonian Lectures on the connection between Chemical Structure and Physiological Action in Relation to the Prevention, Control and Cure of Disease 8vo, 3s 6d Net

MACMILLAN & CO, LONDON

### By WILLIAM H. BENNETT, F.R.C.S.,

Surgeon to St George's Hospital, and Examiner in Surgery at the University of Cambridge

With 12 Diagrams, 800, price 8s 6d

CLINICAL LECTURES ON ABDOMINAL HERNIA, CHIEFLY IN RELATION TO TREATMENT, INCLUDING THE RADICAL CURE,

### VARICOCELE, Svo, price 55.

With 3 Plates, Svo, pine Gs

CLINICAL LECTURES ON VARICOSE VEINS OF THE LOWER EXTREMITIES.

LONDON LONGMANS GREEN & CO

SECOND EDITION, Revised to Date, Now Ready

### THE WORLD-WIDE ATLAS. A WONDERFUL PRODUCTION.

Containing 2 Fiontispieces—The Flags of all Nations and the Time of all Nations Introduction—Geographical Discovery and Political Territorial Changes in the Nineteenth Century, by J Scott Keltie, Assistant Secretary to the Royal Geographical Society, London, 112 beautifully Coloured and thoroughly accurate Plates of Maps, Plans of Cities, etc, Index giving 58,000 Names

Handsomely bound in Cloth, royal 4to, 122×101 inches Price 7s 6d

Complete Catalogue of Atlases, Maps, Globes, Wall Illustrations, &c, posted free to any adaress

Geographers W. & A. K. JOHNSTON, Educational and to the Queen, W. & A. K. JOHNSTON, General Publishers, Edina Works, Easter Road, & 16, South Saint Andrew St., Edinburgh;
5, WHITE HART STREET, WARWICK LANE, LONDON, E.G.

### SCOTT & FERGUSON,

# MEDICAL, GENERAL AND COLLOTYPE

Printers,

Clyde St., EDINBURGH.

### MEDICAL TRANSFER & PARTNERSHIP.

32, LUDGATE HILL, E.C.

Molical Transfer Agents, Referees and Vilues 11 oftense then service to the Profession, have pleasure in referring to the fact, that for about HATLACLE STERY then into of Mr. One lighthy been known in the advertising columns of the

leading Medical Journals, and that every large proportion of the Medical men throughout the langdom have confided their interests in the adjustment of Putnerships and Transfers to then , ic

Purchasers who will communicate (confidentially) the nature and extent of their wishes

is gurding investments can be appared of appropriate opportunities as they occur

On occasions where advice is required in forming a correct conclusion as to the worth of eligibility of a Practice, Messis Orindge & Co trust that their familiarity with the various confingencies that govern value will be found of considerable service to those by whom they mix be employed 4. M.B - No charge is made to Purchasers.

### DEFECTS OF SPEECH.

Stammering, Stuttering, Lisping, Defective Articulation. caused by Cleft Palate, etc., etc.

Mr WILLIAM VAN PRAAGH'S System for the cure of the above Defects of Speech, both ACQUIRED and CONGENITAL

FOR INFORMATION APPLY TO

MR. WILLIAM VAN PRAAGH.

II, FITZROY SQUARE, LONDON, W

PERSONAL INTERVILUS BY APPOINTMENT

JUST READY, Price 5s Net.

### STERILITY IN MEN.

AND

### ALLIED FUNCTIONAL DISORDERS.

BY F. W STOKES, MRCS.

HENRY KIMPTON, 82, High Holborn, W.C., London.

NOW READY

NEW AND REVISED EDITIONS OF

#### SERIES. KIMPTON'S ESSENTIAL

NOS 1 TO 9 APPANGED IN QUESTION AND ANSWER FORM THE LATLST, CHEAPEST, AND BIST

### ILLUSTRATED SERIES OF COMPENDS EVER ISSUED.

THE ADVANIAGES OF QUESTIONS AND ANSWERS—The usefulness of arranging the subject in the form of QUESTIONS AND ANSWERS will be appearent, since the student, in reading the standard works, often is ta loss to discover the important points to be remembered, and is equally plazied when he attempts to formulate ideas as to the manner in which the QUESTIONS COULD BL PUT IN THE EXAMINATION ROOM.

LESSENTIALS OF PHYSIOLOGY By H & HARE, MD Numerous Illustrations Third Edition revised and enlarged by the addition of a series of handsome plate illustrations taken from the celebrated "Icones Nervorum Capitis" of Annold Cloth ESSENTIALS OF DIAGNOSIS by SOLOWAY SOLISOHEN, MD, and AUGUSTUS A ESHNEP, WD MD pages 55 illustrations, some of which are coloured, and a Frontispieco ESSENTIALS OF OBSTETRICS By ENFLRENT ASSITON, MD TO Illustrations Third Edition thoroughly levised and enlarged

1 SysENTIALS OF GINECOLOGY by EDWIN B CRAIGIN. MD TO Cloth Second Edition

1 SysENTIALS OF STATES BY EDWIN B CRAIGIN. MD TO CLOTH SECOND EDWIN B STATES BY COLORS BY EDWIN B CRAIGIN.

6/

41

41

1 ENSENTIALS OF GINECOLOGI BY EDWIN B CRAULA, MD COLOMBRICAN ESCOND Edition
ESSENTIALS OF DISEASES OF THE SAIN BY HINRY W SPILWAGON, MD 74 Illust trations, many of which are original second Edition
6 ESSENTIALS OF REFRACTION AND DISEASES OF THE EXE BY EDWARD JACASON AM, MD and, ESSENTIALS ON DISEASES OF THE NOTE AND THROAT BY ELALDWIN GLILASON, MD Two volumes in one Profusely illustrated Clot ESSENTIALS OF SURGERY BY EDWARD MARTIN, AM, MD Illustrated Clot ESSENTIALS OF SURGERY BY EDWARD MARTIN, AM, MD Illustrated 5th Edition JACKSON, 133 Cloth

4/ 5th Edition 4/

ESSENTIALS OF SURGERY By EDWARD MARTIN, IM, MD Illustrated 5th Edition Revised and Emberged Property By EDWARD MARTIN, IM, MD Illustrated 5th Edition Revised and Emberged Property of the Exemination of Urine By Lawrice Worlf; MD, 3id Edition Revised and enlarged Edition Revised and enlarged Property By D D STI WART, MD and E S Lawrice, MD 63 illustrations. Cloth ILLUSTRICE BY BY M V BALL, MD 81 Illustrations, Some in colours, and five plates 2nd Edition 12 ESSENTIALS OF NERVOUS DISEASES AND INSANITY By John C Shaw, MD 45 original Illustrations Second Edition revised original Illustrations Second Edition revised original Illustrations Second Edition revised NB, Cantab LS \ MR CP, Lond with 46 Illustrations \ MB, Cantab LS \ MR CP, Lond with 46 Illustrations \ ARMAND SLMPLI, BA, MB, Cantab, LS \ MR CP, Lond with 46 Illustrations \ ARMAND SLMPLI, BA, MB, Cantab, LS \ MR CP, Lond, with 10 Illustrations \ MR CP, Lond With 46 Illustrations \ MR CP, Lond, WITH MR CP, Lond, With 10 Illustrations \ MR CP, Lond, WITH MR CRN, LONDON, W

41

8/6 4/6

HIGH HOLBORN, HENRY KIMPTON. 82. LONDON.

In preparation, Eighth Edition, Medium 24mo.

With Medical References and a Therapeutic Index of Diseases and Symptoms.

WILLIAM MARTINDALE, F.C.S., and W. WYNN WESTCOTT, M.B. Lond.

London: H. K. LEWIS, 136, Gower Street, W.C.



Pertect Carriages for Medical Men for either town or country Use, 15s. duty Particulars and Terms of the Builders.

Est Northampton. Mulliner, 1760

One of these cabs from the late Dr Everley Taylor, of Scarborough, for sale for 50 guineas

OPEN

MULLINER'S SPECIALITY -Unpuncturable Pneumatic Tyres on Carriage Wheels

### By HERBERT W. ALLINGHAM, F.R.C.S.,

Surg to the Gt Northern Hosp , Assist Surg to St Mark's Hosp for Disease of the Rectum

### COLOTOMY,

INGUINAL, IUMBAR, AND TRANSVERSE, FOR

### CANCER AND ULCERATIONS.

WITH STRICTURE OF THE LARGE INTESTINE With numerous Illustrations, price 6s EDITOR OF THE FITTH EDITION OF ALTINGHAM ON

### DISEASES OF THE RECTUM.

Numerous Illustrations, price ros 6d (Churchill's)

AUTHOR OF

"The Operative Treatment of Internal Derangements of the Knee Joint." 5s. (Churchill's)

BAILLIÈRE, TINDALL & COX, KING WILLIAM STREET, STRAND, W C

### **DINNEFORD'S**

Flesh-Gloves, Belts, Rubbers, Pads, Etc.

Highly Recommended for imparting a Natural Vigour to the Nervous System, for strengthening Weak Limbs, and for the Prevention and Relief of Gout and Rheumatism Manufactured by the Original Patentees—

DINNEFORD & CO., Pharmaceutical Chemists, 180, NEW BOND STREET, LONDON, W

### INTEMPERANCE.

### CAPEL LODGE, near FOLKESTONE.

Luensed Under the Inebruates' Acts, 1879, 1888

Resident Proprietor & Licensee—E. NORTON, M.D., L.R.C.P., M.R.C.S.

The only RETREAT on South Coast devoted to the care and cure of a limited number of GENTLEMEN only —Patients received privately, or under the Acts

The house is situated on the high cliffs between Folkestone and Dovei, and overlooks the sea, the invigorating air being most beneficial

Large private grounds of seven acres Billiard Room, Library, Home Dairy, &c

For Prospectus apply, Dr Norton, Capel Lodge, near Folkestone

# JOHN WRIGHT & CO., Medical Publishers & Printers, BRISTOL.

### SHORT CATALOGUE.

JOHN WRIGHT & CO are always prepared to negociate for the Publication of Medical and Scientific Works upon advantageous terms, and with greatest excellence of workmanship

Post 8vo Illustrated, and with Coloured Plates, 8/6, post free

### DISEASES OF THE UPPER RESPIRA-TORY TRACT THE NOSE, PHARYNX, AND LARYNX By P Watson Williams, MD, Lond, Phys in charge of Throat Dept at the Bristol Royal Infirmary

Now Ready Illustrated Price 4/- each, post free.
OTHERS IN PREPARATION

URINARY SURGERY. By E HURRY FENWICK, FRCS, Surgeon to the London Hosp, Surgeon and Pathologist to St Peter's Hosp for Urinary Diseases Being the first of WRIGHT'S EPITOMES OF MODERN PROGRESS IN MEDICINE AND SURGERY For Students and Practitioners

Second Edition Revised and Enlarged Cloth, 8vo. Price 4/5.

### OPHTHALMOLOGICAL PRISMS AND

THE DECENTERING OF LENSES A Practical Guide to the Uses, Numeration, and Construction of Prisms and Prismatic Combinations, and the Centering of Spectacle Lenses Illustrated by Sixty-nine Original Diagrams By Ernest E Maddox, MD, Ophthalmic Surgeon, New Town Dispensary, late Syme Surgical Fellow, Edinburgh

Large 8vo Bevelled boards Price 6/-, post free

### SNELL'S MINERS' NYSTAGMUS: AND

ITS RELATION TO POSITION AT WORK AND THE MANNER OF ILLUMINATION With numerous Fine Illustrations, several of which have been obtained from Photographs taken in the Pit with the Electric and Flash Lights By Simeon Snell, FRCS, Ophthalmic Surg to Sheffield General Infirmary

Crown Sto, Clith Price 2/6, post free

### NOTES ON NURSING IN EYE DIS-

FASES Illustrated with Wood Engravings and Process Blocks By C S Juniureson, M D, FRCSE, Senior Surg Northumberland, Darken and Newcastle Inform for Eye Dise, Hon Cons Ophth Surgeon Northwent and Durham Soc for the Blind, etc., etc

Targe 870 Coloured and other Illustrations Price 3/6, post free

MYXCEDEMA, CRETINISM, AND THE
GOITRES WITH SOME OF THEIR RELATIONS BY
LINUTED T BLUE, M D, M R C S

A Third and Remod Edition Sixth Thousand. 10/6, post free ILLUSTRATED WITH 235 ENGRAVINGS.

### PYE'S SURGICAL HANDICRAFT:

A MANUAL OF SURGICAL MANIPULATIONS, MINOR SURGERY, ETC FOR the use of General Practitioners, House Surgeons, Students, and General Dressers. By WALFER PYE, FRCS, Surg to St Mary's Hosp & the Vict Hosp for Children, late Exam in Surg at Univ Glasgow Revised and Edited by THR CROWLL, FRCS, Surg, Regis to St Mary's Hosp & Surg Futor & Joint Lect on Pract Surg in the Medical School. With Special Chapters on Aural Surgery, Teeth Extraction, Anasthetics, etc. By Messis FILLD, Howard Hayward, and Mills

Cheap Laition Large 810 Cloth, 4,6, post free 80 Illustrations

### PYE'S CHILDREN'S DEFORMITIES:

THEIR SURGICAL TREATMENT By WALTER PIE, I'R C S, Author of "Surgical Handwraft"

Twelth Thousand 2'-, post free Pocket size Cloth Upwards of 80 l'Instrutions Adopted by the St John Ambulance Association

### PYE'S ELEMENTARY BANDAGING

AND SURGICAL DRESSING With Directions concerning the Immediate Treatment of Cases of Emergency Mostly condensed from "Pics Sirgual Handwaft" By WALTER PYE, FRCS

Third Editi n Waistoat Pocket Size Stiff Paper Covers, 1/- post free.

### FENWICK'S GOLDEN RULES OF SUR-

GICAL PRACTICE For the Use of Diessers and Junioi House Surgeons By E Hurry Ferwick, FRCS, Surgeon to the London Hospital and St. Peter's Hospital for Uninary Diseases

8vo, 300 pages Price 6,6, post free

### SAUNDBY'S LECTURES ON BRIGHT'S

DISEASE Illustrated with 50 Wood Engravings By Robert Saundby, M D Edin, FRCP London, Professor of Medicine in Mason College, Birmingham, Phys to the General Hospital, Birmingham

Demy See, Cloth, with Illustrations Price 7/6, post free

### SAUNDBY'S LECTURES on DIABETES:

INCLUDING THE BRADSHAWE LECTURE, delivered before the Royal College of Physicians in 1890 By ROLERT SAUNDEY, If D., Edin, F. R. C. P., Lond, Professor of Medicine in Mason College, Lonningham, Privilent to the General Hospital, Burningham

Second Edition, 400 pp. Siec 60 Illustrations 7/6, post free

STRETCH DOWSE'S LECTURES ON MASSAGE AND ELECTRICITY IN THE CURATIVE TREATMENT OF DISEASE B, THOMAS STRLICH DOWSE, M D, FR C P, Edin, Formerly Ph, Sift Cent Long Sick Asslum

Pecket size, limb covers, 21-, fost free With numerous Illustrations, reduced from the larger work by the same Author

STRETCH DOWSE'S PRIMER OF THE
ART OF MASSAGE FOI Learners By THOM'S STRLICH
DOWSE, M D

In ge 8:10 Reprint Cloth Boards Hustrated. 6/-, post free

### THE PRACTICE OF HYPNOTIC SUG-

GESTION Being an Elementary Handbook for the use of the Medical Profession By George C Kingsbury, M.A., M.D., University of Dubian

Extracts from Press Net ces

'Un charmant volume Nors ne doutons pas du succes du livre de notre confece
Kingspury et lui predisons plusicius ic editions "Prese u de l'il protisme

"An excellent presentation of the subject of Hypnotism Should be read by the general practitioner, as well is the consult int and specialist" - Press Vied Journal

Small 4to Cloth lettered Price 2/6, post free

RHEUMATISM: SOME INVESTIGATIONS RE-SPECTING ITS CAUSE, TREATMENT, AND CURE By Percy Wilde, M D

"The vist importance of the subject, and the cuteful manner in which it is dealt with in this book, ought to seeme for the author's opinions, and still more for his treatment, the most entered and impaired consideration."—Glasgoro Med Journal

"We strongly recommend its perusal to our medical reiders"-Higuine

Large 800 Cloth, 61-, post free

### SHAW'S EPITOME OF MENTAL DIS-

FASES WITH THE PRESENT METHODS OF CHRTIFICATION OF THE INSANE, AND THE EXISTING REGULATIONS AS TO "SINGLE PATIENTS" A Book of Reference for Practitioners and Students, Alphabetically arranged By James Shaw, M D

Crown 8vo, Cloth, 2'6, post free Second Edition, Enlarged

### THE WORKHOUSE AND ITS MEDICAL

OFFICER By ALFRED SHEEN, M.D., M.R.C.S., Senior Surgeon Glumorgan and Monmouthshire Infirmary, Cardiff

Imperial 16mo Cloth, 3/6, post free

# PTOMAINES AND OTHER ANIMAL ALKALOIDS: THEIR DETECTION, SEPARATION, AND CLINICAL FEATURES. By A C FARQUHARSON, M D, D P H Cantab. Senior Assistant Med Officer, the County Asylum, Lichfield

Third Edition 8vo, thick paper covers, 1/6, or Cloth, 2/6, post free MAY BE SAFELY RECOMMENDED

OUR BABY; A BOOK FOR MOTHERS
AND NURSES By Mrs Langton Hewer, Diplomée Obsteti ual
Society, London, late Hospital Sister Author of "Antiséptic Nursing"

Crown 8vo Price 1/-, post free

THE WATER CURE IN THE BED-ROOM, OR, HYDROPATHY AT HOME. By G H DOUDNEY, MB, MRCS, Eng

Price 1/-, post free Fourth Edition Enlarged and Illustrated

BATHS AND BATHING: HOW TO BATHE WHEN TO BATHE WHEN NOT TO BATHE By JOSEPH FARRAR, MD, LRCP, etc

Just Published Crown 8vo Limp Cloth Price 2/6, post free

### CLUBS: ATHLETIC and RECREATIVE.

Hints as to their Formation and Management, including Technical Suggestions as to the Legal Position and Liability of Officers, and the Recovery of Subscriptions By Karslake Dene, Solicitor

Large 8vo, about 400 pages 6/-, post free

DISEASE OF INEBRIETY FROM ALCOHOL, OPIUM, & OTHER NARCOTIC DRUGS ITS ETIOLOGY, PATHOLOGY, TREATMENT AND MEDICO - LEGAL RELATIONS. By the American Association for the Study and Cure of Inebriety

Small 8vo, Cloth, with numerous Illustrations 4/-, post free

### A HANDBOOK OF OBSTETRIC AND

GYNÆCOLOGICAL NURSING Being the Fifth Edition of a Manual for Midwives By the late Fleetwood Churchill, M D Revised and Greatly Enlarged by Thomas More Madden, M D, FRCS, Edin, Obst Phys and Gynæcologist, Master Misericordia Hosp

Second Edition 8vo, Cloth 330 pages Price 2/6, post free.

### THE HEALTH RESORTS OF EUROPE.

A Medical Guide to the Mineral Springs, Climatic, Mountain, and Seaside Health Resorts, Milk, Whey, Grape, Earth, Mud, Sand, and Air Cures of Europe By Thomas Linn, M D

Now Ready 4/- each, except where priced Arranged in form of Question and Answer.

### THE LATEST ILLUSTRATED SERIES OF COMPENDS.

ESSENTIALS OF PHYSIOLOGY—By H A HARE, M D ESSENTIALS OF DIAGNOSIS—By SOLOMON SOLIS COHEN, M D and AUGUSTUS A ESHNER, M D 6/-, post free

ESSENTIALS OF OBSTETRICS -By E ASHTON, M D ESSENTIALS OF GYNÆCOLOGY -By E B CRAIGIN, M D

ESSENTIALS OF DISEASES OF THE SKIN -By HENRY W STELWAGON, M D

ESSENTIALS OF REFRACTION & DISEASES | Two vols

OF THE EYE —By EDWARD JACKSON, A M, M D in one ESSENTIALS OF DISEASES OF THE NOSE Profusely AND THROAT —By E BALDWIN GLEASON, M D | Illustrated

ESSENTIALS OF DISEASES OF CHILDREN - By WM M POWELL, M D

ESSENTIALS OF MEDICAL ELECTRICITY -By D D

STEWART, M D and E S LAWRANCE, M D ESSENTIALS OF PRACTICE OF MEDICINE —By HENRY

Morris, M D 6/-, post free ESSENTIALS OF SURGERY—By E Martin, A M, M D. ESSENTIALS OF PATHOLOGY & MORBID ANATOMY -

By C E ARMAND SEMPLE, BA, MB 3/6, post free ESSENTIALS OF FORENSIC MEDICINE, TOXICOLOGY AND HYGIENE -By C E ARMAND SEMPLE, BA, MB

4/6, post free ESSENTIALS OF BACTERIOLOGY -By M V BALL, M D

ESSENTIALS OF NERVOUS DISEASES & INSANITY -By John C Shaw, M D ESSENTIALS OF DISEASES OF THE EAR

Br G B GLEASON, SB, MD

Large 8vo, Cloth, 560 pages Price 15/-, post free

### TEXT BOOK OF THE ERUPTIVE AND CONTINUED FEVERS. By JOHN WM MOORE, BA, MD,

M Ch, Univ Dublin

Price 7/6

### THE POCKET PHARMACY, WITH THERA-

PEUTIC INDEX A Résumé of the Clinical Applications of Remedies adapted to the Pocket Case, for the Treatment of Emergencies and Acute Discases By John Aulde, M.D., Member of the American Medical Association

Small 8vo Cloth limp, flush, 1/6 post free

MANUAL OF URINE TESTING. By JOHN SCOTT, BA, MB Second Edition.

A Revise 1 (Twillh) Edition Post Sue, 10/6 post free

### HOBLYN'S DICTIONARY OF TERMS

USED IN MEDICINE and the Collateral Sciences Revised and Enlarged by J. A. P. Prich, B.A., M.D. Oxon, Assist Sung Regal Deckshire Hosp., Lett Phys. Royal Hosp for Children and Women

A New Work for M dual Students and Practitioners. In Four Parts. Importal 800, sewed in wrapper

DISSECTIONS ILLUSTRATED: A GRAPHIC HANDBOOK FOR STUDENTS OF HUMAN ANATOMY
B. C. GORDON BRODN, FRCS With Plates Drawn and Litho-

graphed by Plecy Hightia.

Part I—THE UPPER LIMB, 8<sub>1</sub>6 post free, with Seventeen Colonical Plates and Ten Diagrams. Part II—THE LOWER LIME, 10<sub>1</sub>-post free, with Tventy Colonical Plates, two-thirds natural size, and Six Diagrams. Part III—IIEAD, NECK, ND THORAN, 10<sub>1</sub>-post free, with Twenty Colonical Plates. Part III—THE ABDOMEN, with Sixteen Colonical Plates and Light Diagrams, will affear shortly.

Third Edition, Revised and Enlarged Crown 800, 2/6 post free

ON BALDNESS AND GREYNESS: THEIR ETIOLOGY, PATHOLOGY, AND TREATMENT By Tom Robinson, M.D., Late Phys. to St. John's Hosp. for Dis. of the Shin

Crown 800, 2/6 post free

PRURIGO By Tom Robinson, M. D., late Phys. to St. John's Hosp for Dis. of the Skin

Crown 800, 5/-

ABORTION AND ITS TREATMENT, from a Standpoint of Practical Experience By T Galllard Thomas, M.D., Emeritus Professor of Obstitics and Gynacology

870, 300 pages, with 50 Illustrations, 10/6

DISEASES OF BRAIN & SPINAL CORD:
THEIR DIAGNOSIS, PATHOLOGY, AND TREATMENT
By DAVID DRUMMOND, MA, MD, TCD

Limp Leather, Flap Cover, thumb in her 2nd Edition 6/- net

SAUNDERS' POCKET MEDICAL

FORMULARY With an Appendix containing Posological Table Formulæ and Doses, etc., etc. By Wm M Powell, M D , Philadelphia

Large Sio Cloth Illustrated 14/- post fice

TRANSACTIONS OF THE ROYAL ACADEMY OF MEDICINE IN IRELAND VOI XII

JOHN WRIGHT & CO, Publishers and Printers, BRISTOL.

Large 8vo, Cloth, 800 pp, with 441 Illustrations, 21/- post free

### TILLMANN'S PRINCIPLES OF SUR-

GERY AND SURGICAL PATHOLOGY With General Rules Governing Operations and the Application of Dressings Translated from the Third German Edition by John Rogles, M.D., and Benjamin Tilion, M.D. Edited by Lewis A. Shinson, M.D., all of New York

Small 8vo Cloth, 3,'- net, post free.

### LECTURE ON CHRONIC DISEASES

OF THE HEART By JAS LITTLE, M.D. Ed., Phys. to Adelaide Hosp., Cons. Phys. to the Rotunda, St. Mark's, and Dr. St.ceen's Hospitals, Dublin

Sue Cloth, with 33 Illustrations, 7/6 post free

### DISEASES & DEFORMITIES OF THE

SPINE By R L SWANN, FRCSI, Surg to Di Steelen's Ho p , and to the Orthopolic Hosp , Dublin

Large 8vo Cloth 690 pp, with 310 Engravings and Coloured Plates 21/- post free

### A TEXT-BOOK OF THE DISEASES OF WOMEN By HENRY | GARRIGUES, AM, MD, New York

WOMEN By HENRY J GARRIGUES, AM, AD, New York

### Wright's NEW PRESCRIPTION BOOKS.

Single or Duplicate Gold Stamped, Round Corners, Gilt Edges, Printed and Perforated

In ordering, please quote the Number

No	DACH	Dozes
12 — 150 Prescription Forms in Book each to tear out, 4in × 01in	1 -	10 -
13 -100 Ditto in Book, with Duplic ite on Copying Paper	1 -	10 -
14 -75 Ditto, Waistcoat Pocket size, 21m × 41m	64	5 -
23 (The same of Not to and to but a pure at the aids in tool of the last	( 1-	10 -
The same as Nos 12 and 13, but sown at the side instead of the load		10,-
Nos 12, 13, 23 and 24, printed with con name, address and hours of as	tene une	for 12'-
per do-en books		. •

Ninetieth Thousand (Samples free on application)

### WRIGHT'S REGISTERED POCKET

CHARTS For Bedside Case Taking Compiled by ROBERT SIMPSON, LRCP, LRCS These Chaits provide a method of recording important cases without loss of time and with little trouble

PRICE LIST-In ordering, please quote the number

Νo	1 -50 CHARTS, folded for Pocket Case	post fire,	2/6
,,	2 - 50 Ditto on Cards, Eyeletted, Flat	,,	6
,,	3 - I POCKET CASE, limp 10 in, to hold 50 Chaits, complete with		
	Indelible Ink Penal	,,	2,6
,,	4 - r Guard Book, half bound, gold lettered, to hold 200 Complete		
	Charts	19	6/- 10 6
,,	5-50 CHARTS, I GUARD BOOK, and I POCKFI CASE, complete 6-CHART HOLDERS, for hanging at bed heads		10 6
,,	o — CHART HOLDERS, for nanging at old heads	or 9 - per a	ozen
	Special anotations to Hospitals taking not less than 250 Chur	s. unfolde	1

#### REGISTERED COMBINATION

### TEMPERATURE AND DIET CHARTS.

With Clinical Diagrams, specially arranged for Hospital use Designed by Robert Simpson, LRCP, LRCS Contain on the front an improved Temperature Chart for four weeks, a Diet Chart, Instructions to Niises, etc, and at back two full-length Clinical Figures, including Outlines and Skeleton (front and back), with viscera printed in red ink, and separate outlines of Head

PRICE LIST-In ordering, please quote the number

	er 1000	500	250	ICO	50	less ea
No 7—CHARTS, complete, with Figures on back, in two colours		20/-				
,, 8—Ditto, without Figures, one side only . ,, 9—Clinical Figures only, two colours	26/-		7/- 8/-		2/6	ld ld
,, 22—Temperature Charts only, for 4 weeks Samples free on		12/6 ion	7/-	3/-	2/-	Id

Second Year. Leather Flap Cover and Fastener, 5/6 post free

### WRIGHT'S IMPROVED PHYSICIANS',

SURGEONS' AND CONSULTANTS' VISITING LIST, 1835 Requires writing up only once a Month (Design Registered) Compiled by Robert Simpson, LRCP, LRCS

### MEDICAL ACCOUNT BOOKS.

Please quote number in ordering

No	10 -ITEM PAPERS, an × 710		5/-, 1000, 8/-
,,	11 - ,, 41n × 71n		5/6, ,, 9'-
,,	15 —CASH BOOKS, 9111 × 6111, strongly half bour paged, 250 pages	na, printed neadings	7/-
,,	16 —Ditto, 500 pages		9/-
"	17 -DAY BOOKS, 124in X 8in, 250 pages, 1ul	ed for 31 days and	cash
	column, printed headings, strongly half b	ound, paged	.11/-
37	18 —Ditto, 500 pages 19 —D vy Books, 12 lin × 6in, ordinary ruling, pa	and atuanalus half ha	15/-
,,	250 pages	geo, strongly half bo	6/-
,,	20 —Ditto, 500 pages	•	8/-
••	21 -Ledgers, 12-11 × 81n, strongly half bound,	250 pages	10/-
,,	22 -Ditto, 500 pages		14/-

Modern Single Book System of Account Keeping. Nearly 400 have been sold since their Introduction in 1891.

### Jefferson's PHYSICIANS' & SURGEONS'

REGISTER Comprising in one book Day Book, Ledger, Cash Book, Obstetric Record, Yearly Totals, Memoranda, and Summary of Accounts Rendered Self-posting and Self-indexing

#### PRICES STRONGLY HALF BOUND

Registering 2,600 Accounts, £1 10 0 | Registering 5,200 Accounts, £2 12 6

One book is usually sufficient to last Four Years

This method is extremely simple when once understood, and its advantages are obvious  $\tau$ —A Regular Patient's name need only be written in once a year, or once in two lears, as desired 2—I here is no Ledger Index to be consulted for posting accounts 3—There is only one book required 4—A Patient's Account for one or two entile years is under the eye at one time 5—I he Particulars given are sufficient to establish a claim to any account in a Law Court if required 6—Any special Memoranda relating to a patient are continually under view with his account

NEW.

The most PALATABLE and PERMANENT form in which to prescribe

### FERROUS

THE BRITISH MEDICAL JOURNAL says - "An excellent method of administering ferrous carbonate"

THE MEDICAL PRESS AND CIRCULAR SAVS -" Iron Fellords These are a distinct advance may be highly recommended " THE LANCET says -" The preparation is palatable and can

easily be swallowed"

THE HOSPITAL says -"We can confidently recommend the Iron Felloids as a most valuable substitute for the ordinary form of Blaud's pill"

THE BRITISH AND COLONIAL DRUGGIST SAYS -"We have never seen a better colour [of Ferrous Carbonate] in the fresh mass "

40. DE BEAUVOIR ROAD, N E

GENTLEMEN. October 27th, 1894 Please send me a gross of Iron Jelloids, No 2

I have recently given them to a case of gastric ulcer, with profuse hæmatemesis from chlorosis One was administered every hour from about 6 a m to 10 p m, they caused no pain, and their complete assimilation was shown by the rapid restoration of appetite and colour. Yours faithfully.

(Mrs) L H ANDREW-BIRD, LCPI

MESSRS WARRICK BROS

Very many medical men have written us in praise of this new form of BLAUD'S Pills

No 1=Pil Blaud, grs 5 | No 9=Pil Blaud, grs 5 c Liq Arsen, m 2 grs 10 No 10= grs 10 No 2= ,, ,, grs 15 No 11= grs 20 No 12= m 2 N > 3= grs 15 ,, 27 m 2 grs 20 ,, ,, And other combinations and strengths

WARRICK BROTHERS, 18. Old Swan Lane, LONDON, E.C.

### MEDICAL DEBTS OF 2/6 AND UPWARDS

COLIECTED BY THE

# Medical and General DEBT COLLECTING OFFICE

(ESTABLISHED 1865),

### 55, St. Aubyn Street, DEVONPORT,

At 3d in the Shilling, on all sums paid to the cieditor into the above office, or through any other channel. No debt collected for less than One Shilling

A very mild Letter will be sent, if desired, to each Patient, requesting him to pay the full amount to the medical man, before the usual Debt Letter is sent, by which means medical men shall not give offence to any of their patients, especially where they are attending several members of the same family

Immense sums of money have been collected by this office without the aid of the County Court—including debts out of date, struck off the books as bad, and given up as utterly irrecoverable—through the very great advantage of receiving the debts, in many instances, by very small instalments

The only expenses medical men are put to in unsuccessful cases is One Shilling each dobt

Only the Name, Address, Occupation, and the Amount Owing by each debtor is required

### C. B. COURTENAY THOMAS,

MEMBER OF CORPORATION OF ACCOUNTANTS,

MANAGER

MEDICAL VISITING LISIS, ALSO JOURNALS, SUPPLIED GRATIS

### OPINIONS OF MEDICAL MEN.

"Your letters act like magic  $\,$  What is it in your letters that makes people pay?  $\,$  I should think they were prepared by a barrister"

"I shall recommend your office to several of my medical friends. It is far better to pay you 3d in the is on sums collected than 25s per year to I rade Protection Offices."

"How did you get Mi to pay the £4 55 down? I could not get a reply to my letters I sent him for the pist two years

"Every delt you had got for me I had given up as bad — I did not think you would have collected half that amount by this time, each of those debtors had a solicitor's letter, which they took no notice of

"We consider that about 40 per cent of our debts has been collected through the extremely gentle pressure of your office

### ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.

FOUNDED BY RAYHERE, AD 1123

THE Cliuical practice of this Hospital comprises a service of 744 Beds, of which 222 are allotted to the Medical Cases, 830 to the Surgical Cases, 26 to Diseases of the Eye, 24 to Diseases of Women, and 22 to the Syphilitic, while 70 are for Convalescent Patients at Swanley, Kent The Hospital receives within its Wards nearly 7000 Patients annually, whilst the Out Patients amount to more than 156,000

PUPILS' APPOINTMENTS.

Eight House Physicians, each holding office for one year, are appointed by the Physicians Each House Physicians is provided with rooms by the Hospital authorities. Ten House Surgeons each holding office for one year, are appointed by the Surgeons. Each House Surgeon is provided with rooms by the Hospital authorities.

The Midwitery Assistant holds office for six months, and is appointed by the Physician-Accoucheur He is provided with rooms by the Hospital authorities.

The Ophthalmic House Surgeon is appointed every six months by the Ophthalmic Surgeons All the above office is receive a salary of £25.

Two Resident Assistant Electricians, with a salary of £25, are appointed every three months. The In Patient Dressers, the Clinical Clerks, the Obstetic Clerks the Clerks to the Outpatients, the Dressers to the Out Patients, and the Clerks and Dressers in the Special Departments are chosen from the diligent Students. No fee is paid for any of these appointments.

are chosen from the diligent Students No iee is paid for any of these appointments MEDICAL AND SURGICAL STAFF.

Physicians—Dr Church, Dr Gee, Sir Dyce Duck worth, Dr Hensley

Assistant Physicians—Dr Brunton, FRS, Dr Norman Moore, Dr S West, Dr Onmerod

Consulting Sungeons—Sir J Paget, Bart DCL, FRS, Luther Holden, Esq, Sir Wm Savory, FRS.

THE COLLEGE.

Students attending the Practice of the Hospital, or the Lectures in the Medical School are admitted to residence in the College within the Hospital walls, subject to the College Regulations LECTURES.

Medicine—Sir Dree Duckworth Dr Moore Surgery—Mr Willett, Mr Marsh Descriptive and Surgical Anatomy Mr Walsham, Mr Bruce Clark

Mr Bruce Clark
General Anatomy and Physiology, with Histology
—Di Klein FRS
Chemistry and Practical Chemistry—Dr Russell,
FRS

Midwifery-Dr Champneys

Physics—Mr F Womack Materia Medica—Dr Brunton FRS, Lotany—Rev George Henslow Forense Medicine—Dr Hensley

Foreign Medicine—Dr Hensley
Hygione—Dr Thorne
Biology and Companative Anatomy—Dr Shore.
Pathological Antomy—Dr Lanthack
Ophthalmic Surgery—Mr Vernon
Fsychological Medicine—Dr Claye Shaw

CLINICAL LECTURES

Are given duing the Winter and Summer Session

Chinical Medicine—Dr. Church Dr. Gee, Sir Dyce Duckwoith, Dr. Hensley

Climcal Surgery—Mr. T. Smith Mr. Willett, Mr. Langton, Mr. Marsh, Mr. Buthn

Mdwifery and Diseases of Women—Dr. Champueys

Climcal Surgery—Mr T Smith Mr Willett, Mr Langton, Mr Marsh, Mr Buthn
Madwifery and Diseases of Women—Dr Champieys

SPECIAL DEPARTMENTS

Diseases of the Shin—Dr 8 West
Oithopædic Surgery—Mr Walsham
Diseases of the Exe—Mr Cumberbatch
Dr Hayward, Mr Weir

Meticul Registra—Dr Herringham
Dr Hayward, Mr Weir

Meticul Registra—Dr Herringham
Noutransial Medicine—Dr West, Dr Calvert, Dr Prectical Midwitery—Dr Roberts
Multiculate Midwitery—Dr

### T. THOMAS'S HOSPITAL. EMBANKMENT, WESTMINSTER BRIDGE, SE.

Physicians-Dr Bristowe, Dr Harley Obstetric Physician-Di H Geivis Ophthalmic Surgeon-Mr Liebreich Visiting Staff

Consulting Staff Surgeons—Sir John Simon KCB, Mr Sydney Jones, Mr Croft, Sir William Mac Cormac

Physicians—Dr Ord, Dr J F Payne, Dr Sey mour J Sharkey, Dr T D Acland Assistant Physicians—Dr H P Hawkins, Dr H W G Mackenzie, Dr H G Tuney

Stan Surgeons—Mr A O Mackellar, Mr H H Clutton Mr W Anderson, Mr B Pitts Assistant Surgeons—Mr G H Makins, Mr W H Battle, Mr C A Ballance, Mr H B Robinson

Ear Department Surgeon—Mr C A Ballance Electrical Department Physician—Di H G

Dental Department Surgeon-Mr C E Truman

Surgeon-Mr William

### Special Departments Skin Department Anderson

Obstetric Department Physician-Di C J Cullingworth

Assistant Physician—Dr R Cory
Eye Department Surgeons—Mr E Nettleship,
Mr J B Lawford
Throat Department Physician—Dr F Semon

Medical

Resident Assistant Physician—Dr S G 10ller Resident Assistant Sulgeon—Mr F C Abbott Amesthetists—Mr Tyricll Mr White Dental Department—Mr Moriis

Turner Officers.

Pharmaceutist—Mr Edrund White Mcdical Registrar—Dr C R Box Surgical Registrar—Mr C S Wallace Obstetric Registrar—Dr W W H T: Oustetric Registrar-Dr

#### Lecturers

Medicine-Dr Payne, Dr Sharkey Clinical Medicine-Dr Ord, Dr Payne, Dr

Canacat medicine—Dr Ord, Dr Payne, Dr Sharkey Dr Acland Surgery—Mr Clutton, Mr Pitts Clinical Surgery—Su William Mac Cormac, Mr Machellar, Mr Clutton, Mr Anderson, Mr Pitts

Practical Surgery—Mr MacKellar, Mr Ballance Descriptive Anatomy—Mr Anderson, Mr Makins General Anatomy and Physiology—Dr Sherrington

Practical Physiology and Histology—Dr Sher rington

Elementary Biology—Mr Parsons Diseases of the Eye—Mr Lawford

Diseases of the Throat—Dr Semon Chemistry, Chemical Physics, and Practical Chemistry—Mi Wyndham R Dunstan Midwifery and Diseases of Women and Infants—Dr Cullingworth Pharmacology & Therapeutics—Dr Mackenzie Forengic Medicine and Tolicology—Dr Cory,

Mr MacKellar Pathological Anatomy—Dr Hawkins Surgical Pathology and Bacteriology — Mr Shattock

Shattock
Botany-Mr Bennett
Comparative Anatomy & Zoology-M Parsons
Mental Diseases-Di Rayner
Public Health-Dr Edward Seaton

Elementary Clinical Medicine-Dr Mackenzie, Dr Turney

Scholarships, Prizes, and Appointments

Elementary Clinical Medicine—Dr Mackenzie, Dr Turnsy
Two Open Entrance Science Scholarships, of £150, and £400, are awarded in October to First
Yan's Students after an Examination in Chemistry, Physics and Bohany, Zoology, or Physiology
One Open Entrance Science Scholarship in Anatomy, Physiology, and Chemistry, of the value of £50, for
Third I ear S Students
1 the Students Scholarship in Anatomy, Physiology, and Chemistry, of the value of £50, for
Third I ear S Sundents
1 the Students Scholarship in Anatomy, Physiology, and Chemistry, of the value of £50, for
Third I ear S Students
1 the Students Scholarship in Elements
1 the Students Scholarship in Elements
1 the Students Scholarship in Elements
1 the Students
1 th

The Wilder Session commences on Cowder is, and the Sammer on May 100 ments and the Session.

The Fees may be paid in one sum or by instalments Special Entries may be made to Lectures and Practice Students can enter in the second or subsequent years at a reduced fee Dental Students are admitted Quililed Practi ioners can obtain perpetual tickets on payment of a small fee

Special Classes are held for the Preliminary Scientific and intermediate MB Examinations of the University of London

Any further information may be obtained from Mr RENDLE, Medical Secretary.

### University of Durkam.

### COLLEGE OF MEDICINE, NEWCASTLE-UPON-TYNE.

DEGREES IN MEDICINE, SURGERY, AND HYGIENE—Six Degrees are conferred by the University of Durham—viz, the Degrees of Bachelor in Medicine, Doctor in Medicine, Bachelor in Surgery, and Master in Surgery, Bachelon in Hygiene, and Doctor in Hygiene, and Diploma in Public Health

Attendance at the University of Durham College of Medicine during one of the five years of professional study, or subsequently to qualification elsewhere, is required as pair of the cur riculum for the Degrees, except in the case of Practitioners of more than fifteen years' standing who have attained the age of forty years, who can obtain the Degree after examination only

The first two Examinations for the Degree of MB may be passed prior to the commencement of attendance at Newcastle

A Candidate who has a recognized qualification, or who has passed the First Examination of the Conjoint Board in England of the Royal College of Physicians of London and the Royal College of Surgeons of England, will be exempt from the First Examination of the University of Duiham, except in the subjects of Chemistry with Chemical Physics

A candidate who has passed the First and Second Examinations of the University will be exempt from the First and Second Examinations of the Conjoint Board in England, and will be entitled to present himself for the Final Examination of the Board on the completion of the necessary curriculum

The Extra 4rts Examination must be passed previously to the candidate's entry for his Final Examination for the Degree

All information, together with Examination Papers &c, is given in the Calendar of the University of Durham College of Medicine, Nowcastle upon Tyne, or may be obtained from the Secretary at the College

at the College

Scholar ships, & —A University of Duiham Scholarship, value £100, for proficiency in Aris awarded annually to full Students in their first year only. The Dickinson Scholarship—value £16 and a Gold Medal—for Medicine, Surgery, Midwifery, and Pathology. The Tulloch Scholar ship—value, the interest of £400—for Anatomy, Physiology, and Chemistry. The Charlton Scholarship—value, the interest of £400—for Medicine. The Gibb Scholarship—value the interest of £500—for Hallogy. The Luke Armstrong Scholarship—interest on £500—awarded to the Candidate who obtains highest marks in the honours division in the final examination in April and Soptember in each year. The Stephen Scott Scholarship—interest on £500—awarded to the Candidate who obtains highest marks in the honours division in the final examination in April and Soptember in each year. The Stephen Scott Scholarship—Interest on £500—for promoting the study of Heima and allied subjects. Heath Scholarship—The late George Fooman Heath, M.D., M.B., D.C.L., F.R.O.S., President of the University of Durham College of Medicine, has bequeathed the sum of £1000 to found a Scholarship in Suigery, the interest to be awarded every second year. The Goyder Memorial Scholarship in Suigery, the interest to be awarded severy second year. The Goyder Memorial Scholarship (at the Infirmary)—value, the interest of £222—for Clinical Medicine and Clinical Surgery. At the end of each bession a Prize of Books and Honours Cettificates are awarded in each of the regular Classes. An Assistant Curator of the Museum, Assistant Demonstrators of Anatomy, Prosectors, and Assistant Physiologists are elected yearly. Pathological Assistants, Assistants to the Dental Surgeon, Assistants in the Eye Lepartment, Clinical Clerks, and Dressets are appointed every three months.

The Royal Infirmary contains 280 beds. Clinical Lectures are delivered by the Physicians and

The Royal Infirmary contains 280 beds Clinical Lectures are delivered by the Physicians and Surgeons in rotation Pathological Demonstrations are given as opportunity offers by the Pathologist Practical Midwifery can be studied at the Newcastle Lying in Hospital, where there is an Out door Practice of about 500 cases annually

- (a) A Composition Ticket for Lectures at the College may be obtained-

  - By payment of 70 guineas on entrance
    By payment of 45 guineas at the commencement of the First year, and 85 guineas at
    the commencement of the Second year
    By three annual instalments of 85, 30, and 20 guineas respectively, at the commence-
  - ment of the Sessional year
- (b) Fees for attendance on Hospital Practice -

For three months' Medical and Surgical Practice, 5 guineas

19 one year's ••

or by three instalments at the commencement of the Sessachal lyear—viz, First year, 12 guineas, Second year, 10 guineas, Third year, 6 guineas Or by two instalments—viz, First year, 14 guineas, Second year, 12 guineas

In addition to the above fees, the Committee of the Royal Infirmary require the payment of 2 guineas yearly up to three years from every Student attending the Infit mary for a year or part of a year after three years of attendance, such payment will be no longer necessary

(c) Single Courses of Lecture, 5 guineas

Fees for Lectures, &c., at the College must be paid to the Registrar, and Fees for Hospital Practice to the House Physician at the time of entry Further particulars may be obtained from the Secretary,
HENRY FOX, R.N., at the College

### UNIVERSITY OF EDINBURGH.

### FACULTY OF MEDICINE -WINTER SESSION

The Winter Session begins in October. Prof Fraser, M.D Materia Medica Chemistry . Prof Crum Brown, M D. Prof Chiene, M D Surgery Prof Rutherford, M D Physiology Midwifery & Diseases of Women) Prof Simpson, M D and Children Prof Annandale, M D Clinical Surgery (Tu & Fr) Profs Sir Thomas Grainger Stewart, Fraser, and Greenfield, and Simpson Clinical Medicine (Mon & Th) on Diseases of Women Prof Sir William Turner, M B Anatomy Prof Sir Thomas Grainger Stewart, M D. Medicine Prof Greenfield, M D Pathology .. Prof Balfour, M D Botany Prof Ewart, M D Zoology C G Knott, D Sc Physics

Lecturers — Diseases of Children, James Carmichael, M D, and John Playfair, M D, Regional Anatomy, David Hepburn, M D, Advanced Practical Physiology, E W Wace Carlier, M D, B Sc, Pathological Bacteriology, Robert Muir, M D

### SUMMER SESSION

The Summer Session begins on 1st May.

Botany, Prof Balfour — Forensic Medicine, Prof Sir Douglas Maclagan — Clinical Medicine, Profs Sir Thomas Grainger Stewart, Fraser, and Greenfield, and Prof Simpson on Diseases of Women — Clinical Surgery, Prof Annandale — Organic Chemistry, Prof Crum Biown — Zoology, Prof Ewart — Physics, Prof Tait — Mental Diseases, T S Clouston, M D — Diseases of the Eye, D Argyll Robertson, M D — Diseases of Children, Jas Carmichael, M D, and J Playfair, M D — Regional Anatomy, David Hepburn, M D — Experimental Pharmacology, Joseph Tillie, M D

The annual value of the Fellowships, Scholarships, Bursaries and Prizes in the Faculty of Medicine amounts to about £3,750, that of others which

may be held by Students of Medicine amounts to about £1,250

Practical Instruction is afforded in Laboratories, furnished with all the necessary appliances, and in Tutorial and Practical Classes in connection with the above chairs under the superintendence of the Professors

A copy of the Regulations for Graduation in Medicine and Surgery may be had on application to the Clerk of the University, or to the Dean of the Faculty of Medicine John Kirkpatrick, Secretary of Senatus

University of Edinburgh, December, 1894

### Royal College of Surgeons of Edinburgh.

FOUNDED 1505

Copies of the Regulations for the Fellowship, Licence, and Licence in Dental Surgery, with dates of Examinations, Curricula, etc., for the year 1894-5, are now ready, and may be had on application to

JAMES ROBERTSON, Solicitor, 1, George Square, Edinburgh, Clerk to the College.

## University College, BRISTOL

### FACULTY OF MEDICINE.

WINTER SESSION, MONDAY, October 1st. 1894. SUMMER SESSION, WEDNESDAY, May 1st, 1895.

### Courses of Lectures:

```
Medicine—Profs E MARKHAM SKERRITT, M.D. I and, B.S., B.A., F.R.C.P., and R. SHINCLFTON SMITH M.D. Lond, B.S., k.R.C.P. Surgery—Prof J. GKEIG SMITH, M.A., M.B., C.M. Anatomy—Prof EDWARD FANCETT, M.B., C.M. Edin Practical Anatomy—Demonstrators, J. P. BUSH, M.R.C.S., and C. A. Mokios, F.R.C.S.
Physiology—Prof G Munko Smith, MRUS
Chemistry—Lecturer, I Coomber, FUS
Public Health—Lecturer, D S Davies, MD Lond, DPH Cantab
Midwifery and Diseases of Homen—Prof A E Aust Lawrence MD
Medical Junistrudence—Lecturers, R E WIK, MD Lond, and A J Hairison,
MB Lond
M B I and
Pathology and Mobil Antiony—Lectur 1. Baker W J Bakon, M B, C M I din
Operative Surgery—I ecturer, C F Pictiria, FRCs
Practical Surgery—Lecturer, A W Prichard, MRCS
Materia Midica Pharmacology, and Theoperative I ecturer, A B Prowse, MID
Lond FRCS
Practical Phisology and Histology—Lecturer, J Michell Clark, MI, MID
Cantab, MRCP
Biology—Lecturer, Prof C Lioyd Morgan, and S H Reanolds, MA
Practical Chemistry—Lecturer, Toomber, FCS
Comparative Anatomy—Lecturer, Piol C Lioyd Morgan
Dental Surgery—Lecturer, WR Ackiand, MRCS, LDS
Dental Mechanics and Metalingy—Lecturer, C A Harman, LRCS, LDS
Medical Into—A E H Pinch, MRCS
Physiological Assistant—E V Foss
   Physiological Assistant-E V Foss
```

Composition Fee for Lectures-65 guidens of 55 guineas

#### SPECIAL SIX MONTHS' COURSE FOR DIPLOMAIN PUBLIC HEALTH

r-Lectures on Public Health—D S Davies, M D Lond, D P H Cantab
2—Laboratory Course of Hygienic Chemistry and Bacteriology—W W Stoddart
3—Demonstrations on the Various Acts, Orders, Bye-Laws, &c-J C Heaven,
M R C S, D P H Lond 4 -- Practical Out-Door Sanitary Work-D S Davies, M D Lond, D P H, M O H

FEE for the entire Course, 20 guineas

HOSPITAL PRACTICE may be attended either at the Bristol Royal Infilmary or at the Bristol General Hospital

FEES (including Chinical Lectures)-Infirmary Perpetual Medical and Surgical Practice, 20 guineas each, or in one payment, 35 guineas Hospital Perpetual Medical and Surgical Practice, £20 each, or in one payment, 35 guineas

SCHOLARSHIPS AND PRIZES—Numerous valuable Scholar hips and Prizes are offered by the Faculty of Medicine, and by the Infilmary and the Hospital

### St. Mark's Hospital

### FISTULA AND OTHER DISEASES OF THE RECTUM.

CITY ROAD, LONDON, E.C.

FOUNDED 1835

#### Dbvsician .

F DE HAVILLAND HALL, Esq., M D, 47, Wimpole Street, W

#### Smacons .

ALFRED COOPER, Esq, FRCS, 9, Henrietta Sticet, Cavendish Square

DAVID HENRY GOODSALL, Esq., FRCS 17, Devonshire Place, Upper Wimpole St., W

#### Assistant Suigeons .

F SWINFORD EDWARDS, FRCS, 55, Harley Street, Cavendish Square, W HERBERT WM ALLINGHAM, FRCS. 25, Giosvenor Stieet, Giosvenor Square

The days for attendance of Out-patients are, Women-Wednesdays, at 10 o'clock in the morning Men-Saturdays at 3 o'clock in the afternoon l'unctually

Operations take place on Mondays, 2 o'clock, Tuesdays, 2 30 o'clock, in the afternoon

The practice of this Hospital is free to Medical Men and Students

Clinical Instruction is given by the Surgeons both in the Out patient Depart ment and in the Wards

For further particulars apply to ARTHUR LEARED, Secretary

FRS

#### VICTORIA UNIVERSITY

Medical Department.

SEŚSION 1894-5

The Lectures and Classes for the Winter Session commenced on Monday, October 1.

Professors and Lecturers in the Medical Faculty.

Medicine-T R Glynn, M D, F R C P Surgery-Rushton Parker, B S, F R C S Surgery—Rushton Parker, B S, F R C S
Anatomy—A M Paterson, M D
Physiology—F Gorch, M A, B Sz, F R S
Pathologi—R Boyce, M B
Ophthalmology—E A Browne, F R C S Ed
Chemistry—J Campbell Brown, D Sc, F C S
Experimental Physics—Oliver J Lodge,
D Sc, LL D, F R S Midwifery & Gynacology-J Wallace, M D Materia Medica-W Carter, LL B, M D,

FRCP Medicai Junisprudence—FT Paul, FRCS Hygiene—E W Hope, MD, DSc

Mintal Diseases-J Wiglesworth, MD, MRCP Diseases of Children-P Davidson, M A. M B Clinical Medicine—T R Glynn, M D, F R C P, A Davidson, M A, M D, F R C P, R Caton, M D, F R C P, W Cater, M D, F R C P, W Cater, M D, F R C P, Clinical Surgery—W Mitchell Banks, M D, F R C S, Rushton Parket, B S, F R C S, F T Paul, F R C S

Zoslogy-W A Heidman, DSc, FLS.

Botan1-R J Harvey Gibson, M A, FLS

The Medical and Surgical Tutors, and the Demonstrators in Anatomy, Physiology, Chemistry, Physics, and Zology, are in attendance daily at the Infirmary and College
Numerous Prizes and Scholarships, of the value of £525, are offered annually for
competition The Entrance Lyon Jones Scholarship of £21, for two years, will be

competed for early in October The Curriculum qualifies for the Victoria and London Universities, for the Royal Univer-

sity of Ireland, and for all the Colleges of Physicians and Surgeons All the classes are recognized by the Universities of Oxford, Cambridge, Durham, Edinburgh, Glasgow, and Aberdeen For Prospectus and further information apply to the Dean, Prof Gotch, FRS, University College, Liverpeel

### MASON COLLEGE. BIRMINGHAM.

Prof R S HEATH, MA, DSc

Prof B C A WINDLE, M A, M D, D Sc

### Queen's Faculty of Medicine.

The WINTER SESSION will be OPENED on TUESDAY, OCT 1st, 1895 Professors-

Mediume—Profs C W Suckling, M D (Lond), M R C P, and R Saundby, M D (Edin), F R C P, Surgery—Profs Bennett May, M B, B S (Lond), F R C S, and G Bailing M B, B S (Lond), F R C S, Anatomiv—Prof B C A Windle, M A, M D, D Sc, B Ch (Dub), Physiology—Prof F J Allen, M A, M B (Cantab), Chemistry—Prof Fiankland, Ph D, B Sc, F R S, Physics—Prof J H Poynting, D Sc (Cantab), F R S, Comparative Anatomy—Prof 1 W Bridge, M A (Cantab), Botany—Prof W Hillhouse, M A (Cantab), F L S, Therapeutics—Prof A H Carter, M D (Lond), F R C P, Forensic Michigane—Prof J St S Wilders, M R C S, Public Health—Prof Bostock Hill, M D, D P H, Midwifery—Prof E Malins, M D Edin, Ginecology—Prof Thomas Savage, M D, M R C P, F R C S, Pathology—Prof O J Kauffmann, M D, M R C P, Lunacy and Michial Disease—Prof E B Whitcombe M R C S

Lecturers-

Operative Surgery—Jordan Lloyd, MB, MS (Durh), FRCS, Toxicology—Bostock Hill, MD, DPH, Ophthalmology—Priestley Smith, MRCS, Osteology—I Manners Smith, BA (Cannab), MRCS, Materia Medica—J Barclay, BSc (Lond), Physics—J Burke, BA, Chemistry—CF Blake, PhD

#### Demonstrators-

Anatomy—Mess & Manners Smith and Haslam, FRCS, Physiology—Dr Vincent, Botany and Zoo'og)—W E Collinge, Chemistry—W G McMillan, FCS and D R Boyd, BSc, Midwifery and Ginacology—Dr Purslow, Surgical Pathology—G Heaton, MB, FRCS, Materia Medica—J D Whittles, LDS

### DENTAL DEPARTMENT-Lecturers and Demonstrators-

Denial Surgery—Lecturer, F E Huxley MRCS, LDS, Demonstrator, W T Madin LDS, Dental Anatomy & Physiology—Lecturer, J Humpheys, LDS, FLS (Hon Sec of Department), Demonstrator, J D Whittles LDS, Dental Mechanics—Lecturer, F H Goffe, LDS, Demonstrator, F R Howard, LDS, Dental Mitallurgy—Lecturer, W G McMillan FCS, FIC, Medical Diseases of Month, & —Lecturer, T Stacey Wilson, MD, MRCP, Surgical Diseases of Month, & —Lecturer, F Maish, FRCS

There are separate Faculties of Arts and Science Syllabuses, containing full particulars are published separately Further information respecting the Medical Faculty can be obtained from the Dean, or from GEO H MORLEY, Registrar

### VETERINARY COLLEGE,

8. CLYDE STREET, EDINBURGH.

TRUSTEES-THE LORD PROVOST, MAGISTRATES, AND TOWN COUNCIL OF THE CITY OF EDINBURGH

The College Buildings have been entirely reconstructed, and the facilities afforded for the study of veterinary science are such as have not hitherto been available for Veterinary Students

For Full Particulars apply to {Pincipal WALLEY or Professor METTAM

### The Middleser Hospital Medical School.

Hospital Sinff and Lecturers -Consulting Physicians Dr Goodfellow, Dr H Thompson Physicians Dr Cayley, I'r Coupland, Dr Douglas Powell, Dr Fowler Obstetric Physician Dr W Duncan Assistant Physician b Dr C Y Bliss, Dr Pringle, Dr W Pastetu, Dr W E Wynter Consulting Physician to Skin Department Dr Robert Livening Physician to Skin Department Dr Ringle Assistant Obstetric Physician Dr R Boxall Consulting Surgeon Mr Nunn Surgeons Mr Hulke, FR S, Mr Lawson, Mr Henry Morris Mr Andiew Clark Assistant Surgeons Mr Hudson | Consulting Dental Surgeons Mr Sit Street Pennett Assistant Dental Surgeons Mr Wm Lang Auial Surgeons Mr Storer Bennett Assistant Dental Surgeons Mr Wm Hern Other Lecturers Mr B Thompson Lowne, Dr Plimpton Dr Mickle, and Dr A F Voelcke.

SIATEEN RESIDENT CLINICAL APPOINTMENTS are open to Students annually ALL CLERKSHPS and DRESSERSHPS are awarded without fee able for two years, are awarded every year for ploficence in Clinical Knowledge THE MURILLAY SCHOLARSHIP, founded in connection with the University of Aberdeen, is awarded every their dear the view of the Mickless Hospital

awarded everythird year to a Student of the Middlesex Hospital

The GOVERNORS PRIZE OF TWENTY GUINEAS is given annually to the Student who
shall have most distinguished himself in Clinical work in the Out patient Department in his final

year The HETLEY PRIZE, value £25, is awarded annually for proficiency in Clinical Medicine,

Surgery, and Obstetrics
The LYBLL MEDIAL, value 25 5s, is awarded annually to second year's Students
PRIZES - A Prize in Elementary Anatomy and Physiology, value 25 5s, will be given to the
Student who, at the end of his first Winter Session, shall pass the best written and practical examination

An Exhibition of the value of £10 10s will be given at the end of his second Winter Session to

examination

An Exhibition of the value of £10 10s will be given at the end of his second Winter Session to
the Student who shall pass the best written and practical examination in Anatomy and Physiology
Middlese, Hoy ital intrawe Scholarships — Entrance Scholarships in Classics, Mathematics, and
Natural Science are offered for competition at the commencement of the Winter Session Full
particulars may be obtained on application to the Dean Successful candidates are required to
become general studints of the School

SCHOLARISHIP IN AN YOUY AND PHYSIOLOGY—An Annual Scholarship of the value of
20 a year, tenable for two years, is open to Students of the Univ of Cambridge who have passed
the 7nd MB Exam, and to Students of the Univ of Oxford who have passed the 1st MB Exam
Subjects, Anatomy and Physiology, including Histology Examination to take place in October
THE TUTOR's assist all students, especially those who are preparing for examination, without extra
fee, thus the necessity for obtaining purely interests when the Subject Anatomy

MEDICAL and SURGICAL REGISTRAR, IRESIDENT MEDICAL OFFICER, DEMONSTRATORS
of ANATOMY—These valuable appointments are open to qualified men as they become vacant
For further information apply to the Deau or the Resident Vedical Officer at the Hospital

SIDNEY COUPLAND Dean

The Hospital contains 605 Beds, of which 500 are in constant occupation

Special Classes are held for Students preparing for the Examinations of the University of London, and other Higher Examinations

#### APPOINTMENTS

All Hospital Appointments are made strictly in accordance with the merits of the Candidates, and without extra payment

#### ENTRANCE SCHOLARSHIPS, Yearly in September

Two OPEN SCHOLARSHIPS in Aits, one of the value of £100 open to candidates under 20 years of age, and one of £50, open to candidates under 25 years of age Two Open Scholarships in Science, one of the value of £150, and another of £60, open to Candidates under 25 years of age

#### PRIZES AND SCHOLARSHIPS

Are awarded to Students in their various Jears, amounting in the aggregate to more than £6,0

#### DENTAL SCHOOL

A recognised Dental School is attached to the Hospital, which affords to Students all the instruction required for a Licence in Dental Surgery

#### COLLEGE.

The Residential College accommodates about 50 Students in addition to the Resident Staff of the Hospital It contains a large Dining Hall, Reading Room, Library, and Gymnasium for the use of the STUDENTS' CLUB

For Prospectus and further information, apply to the Dean, Dr. SHAW, Guy's Hospital, LONDON, S.E.

### ST. PETER'S HOSPITAL

For Stone, Stricture & Urinary Diseases, &c. ESTABLISHED 1860.

### HENRIETTA ST., COVENT GARDEN, W.C.

President—Rt Hon The Earl of Dunraven and Mount Earl, KP
Treasurer—F A Bevan, Esq.

ST PETER'S HOSPITAL is intended for Persons of both Sexes suffering from Stone in the Bladder and other Diseases of the Genito-Urinary Organs, and contains 24 Beds, and 2 Private Wards for Paying Patients

The number of Patients treated during the last twelve months was 445 In-Patients, and 4,722 New Out-Patients, the latter being seen Daily at 2, except Wednesday and Saturday, Monday, Wednesday, and Saturday Evenings at 5, Fridays at 2, Women and Children only

A Donation of Ten Guineas constitutes a Life Governor, a Subscription of One Guinea an Annual Governor Subscriptions and Donations will be thankfully received by Messrs Barclay, Bevan & Co , 54, Lombard Street, E C , Messrs Hoare & Co , 37, Fleet Street, E C , or by

IRWIN H BEATTIE, Secretary

# ROTUNDA LYING-IN HOSPITAL,

#### Master:

W | SMYLY, MD Dub, FRCPI.

Assistant Physicians:

E HASTINGS SWEEDY, LRCSI, M.RCPI. H WILSON, LRCSI, LRCPI

Extern Maternity Assistant: J K MURPHY, MRCS, LRC.P

Accommodation is provided for a limited number of Intern Pupils

— PUPILS CAN ENTER AT ANY TIME -TERMS OF ATTENDANCE

INTERN PUPILS
For Six Months

Three Months

Two Months

One Month

For Six Months

For Six Months

Two Months

For Six Months

Application to be made to the MASTER or Assistant Physicians at the Hospital, Great Britain Street

FEMALE PUPILS are trained as Nurses and Midwives, Fee 25 guineas
Application to be made to the LADY SUPERINTENDENT

### Borkshire College, Leeds-Medical Bepartment.

#### HOSPITAL STAFF

Consulting Physicians—T Clifford Allbutt, MA, MD, LRS, FROP, JE Eddison, MD Consulting Surgons—C G Who, Ihouse, FRCS, T Pringin Teale, MA, MB, FRS, FRCS, TR Jessop, FRCS, E Atkinson, MRCS, FLS

Physicians- T Churton, M D , A G Barrs, M D , FR CP , C M Chadwick, M A , M D , FR CP , Stu geons-A W Mayo Robson, FR C S E Ward, M A , M B , B C , W H Brown, FR C S I , M R C S , R N Hartley, M B , B S

Ophthalmae and twal Swgeons—John A Nun neley, MB, H Bendelack Hewetson, MRCS Obstetur Physician—James Braithwaite, MD Assistant Physicians—T W Griffith, MD, CM, E F Treelyan, MD, BSC Assistant Swgeons—Harry Littlewood, FRCS, RL Knaggs, MA, MC, FRCS Assistant Ophthalmae and Awal Swgeon—H Secher Walker, FRCS Contact Swgeon—H Secher Walker, FRCS Carter, LDS

#### PROFESSORS, LECTURERS AND DEMONSTRATORS

Medicine—Prof JE Eddison, M.D., Consulting Physician Leeds Infilmary, T. Churton, M.D. Semior Physician Leeds Infilmary, Surgery—Frof A.W. M. Robson, F.R.C.S., Surgeon Leeds Infilmary Prictical Surgery—Frof A.W. M. Robson, F.R.C.S., Surgeon Leeds Infilmary Prictical Surgery—E. Ward, M.A., M.B. B.C. Surgeon Leeds Infilmary Descriptive, Applied, and Practical Anatomy—Prof T. W. Griffith, M.D., C.M., Assistant Physician Leeds Infilmary, Physician to Leeds Public Dispensary Lecturer on Osteology—Edmund Robinson, M.R.C.S. Practical Anatomy Demonstrators G. L. Wells, M.B., B.S., F.R.C.S. Surgeon Leeds Public Dispensary, H.A. Smith, L.R.C.P., M.R.C.S., B.G. A. Moynihan, M.B., B.S., F.R.C.S. Physicology, Practical Physiology and Histology—Prof De Burgh Birch M.D., C.M., F.R.S.E. Demonstrators F.C. Eve, B.A. Pathology and Histology—Prof De Burgh Birch M.D., C.M., F.R.S.E. Demonstrators F.C. Eve, B.A. Pathology and Histology—Prof De Burgh Birch M.D., C.M., F.R.S.E. Demonstrators F.C., Eve, B.A. Pathology and Histology—Prof De Burgh Birch M.D., C.M., F.R.S.E. Demonstrator F.C., Eve, B.A. Pathology and Histology—Prof De Burgh Birch M.D., C.M., F.R.S.E. Demonstrator F.C., Eve, B.A. Pathology and Histology—Prof De Burgh Birch M.D., C.M., F.R.S.E. Demonstrator F.C., Eve, B.A. Sessions Surgeon Leeds Infilmary Midwifery—Prof C.J. Wright, M.R.C.S., Semior Surgeon Leeds Hospital for Women and Children Discasses of Women and Children—Prof B. Hellier, M.D., Surgeon Leeds Hospital for Women and Children Forensic Medicine—T. Scattergood, M.R.C.S., Onsulting Surgeon Leeds Infilmary, Semior Physician Leeds Public Dispensary Demonstrator of Plactical Toxicology—Julius B. Cohen, P.R.D. Material Medica, Pharmacology, and Therapulation—Prof A. Smithellis, B.S.C. M.D., F.R.C.P., Physician Leeds Infilmary Practical Pharmacy—Prof Well, M.A., M.B., B.C., Physician Leeds Infilmary Practical Pharmacy—Prof Well, M.A., M.B., B.C., Physician Leeds Infilmary Ophthalmically A. Vunnicus Physical Leeds Infilmary Ophthalmically A. Vunnicus Physical Leed

The Lectures and Hospital Practice quality Students for the various Examining Boards Students can enter for the Hospital Practice, or the Lectures, or for a Single Course of Lectures separately

The Infirmary in which the Medical and Surgical Practice is conducted, has an average of 400 In Putients Senior Students are scleeted, according to merit, for several Resident Appointments The Dispensary, the Fever Hospital, the Hospital for Women and Children, and the West Riding Asylum at Wakefield are also open to students. The Prospectus and further information may be obtained from the Registrar of the College, W. F. HUSDAND LL B

### Richmond, Whitworth, & Hardwicke Hospitals, Dublin.

The Session, 1894-5, commenced on Monday, October 1, 1894 These Hospitals contain nearly 300 beds

PHYSICIANS—Sir J T Banks, K C B, M D, LL D Physician in Ordinary to the Queen in Ireland, Regius Professor of Medicine, Univ Dublin, Member of the Senate of the Royal Univ Ireland

the Royal Univ Ireiand
S. Gordon, M. D., ex-President College of Physicians, ex-President of the Royal
Academy of Medicine
Guy P. L'Estrange Nugent, M. D., F. R. C. P., Examiner in Medicine, Univ. Dublin,
Registrar Royal College Physicians
Joseph O'Carroll, M. D., Examiner in Medicine, Royal University

Surgeons—William Thomson, FRCS, Vice-President RCS, General Secretary Royal
Academy of Med Ireland, Member of the Senate of the Royal Univ Ireland
William Thornley Stoker, President RCS, Fellow and Examiner in Surgery, Royal
University, Surgeon to Swift's Hospital for Lunatics

Thomas Myles, MD, FRCS, Professor of Pathology and Examiner Royal College

OPHTHALMIC SURGEON—A H Jacob, M D, Oculist to the Lord Lieutenant
Apply to Mr W Thomson, FRCS, Treasurer, 54, St Stephen's Green, E, or to

Dr NUGENT, 19, Lower Fitzwilliam Street. Dublin

#### GORDON HOSPITAL,

### FISTULA, PILES, and other DISEASES OF THE RECTUM. 276 & 278, Vauxhall Bridge Rd., London, S.W.

(ESTABLISHED 1884)

(Close to Victoria Station)

President-The Right Honble Lord Herschell

Treasurer-Sir Arthur Birch, K C M G Bankers-Messrs Houre, 37, Fleet Street Honorary Medical Staff

Consulting Physician—Sir Francis Henry Laking, MD, MRCP, 62, Pall Mall, SW

WI Whitmore, Esq., FRCS, 7, Adungton Street, Piccadilly, SW

CJ Ogle Esq., MRCS, 7, Cavendish I lace, Cavendish Square, W

F Bowremun Jessett, Esq. FRCS, 1, Buckingham Palace Mansions, SW

Edg. Huzhes, Esq., FRCS, 10, Old Cavendish Street, W

Anasihtitist—R Gordon Dill, Esq., MA, and AG, Raussett, Esq., MB

Resident La ly Superintendent—Miss Maxwell

Secretary—St. Legei Bunnett

The Management is vested in a Committee of Governors who are elected at the Annual Meeting The practice is open to the profession Operating day, Tuesday, at 2 30 Out-patients daily at 2, and Tuesday Evening at 8 20 Beds Free to the necessitous poor Paying patients admitted if unable to afford operative treatment at home. In every case all moneys received from patients, or whatsoever source, are entirely devoted to the Hospital

213. 740. In-Patients during 1894 -Since foundation Out-Patients " 6632. Total Attendances ... - 3728. - 24.376.

### LONDON SCHOOL OF MEDICINE FOR WOMEN, 30, HANDEL STREET, BRUNSWICK SQUARE;

and ROYAL FREE HOSPITAL, GRAY'S INN ROAD

and ROYAL FREE HOSPITAL, GRAY'S INN ROAD

MEDICAL OFFICERS AND LECTURERS—At the School Anatomy and Prac Anatomy—Mr

Stanley Boyd, M B b R CS Physology, and Prac Physology—Prot Hallivoton F R S Chemis

try and Prac Chemisty—Miss Lucy Boole FIC Elementary Physics and Biology—Miss Ewart,

BSC Principles and Practice of Medicine—Mis Garrett Anderson, MD, and Dr Horatico Donkin

Principles and Practice of Surgey—Mr A T Notion Materia Medica and Therapeutics—Dr

Hairington Sainsbuy Midwifery and Discases of Women—Mrs Scharlieb, MD Forensic Medica

cine—Di Duppe F R S, Mis Dowson LR CP, LR C SI Pathology—Mr Quarry Silcock, MD,

FR CS Ophthalmic burgery—Mi Giosvenor Mackinlay, FR CS Mental Pathology—Dr Mercier,

FR CS At the Hopulat Clinical Medicine—Dr Samuel West and Dr Harrington Sainsbury

Asst Physicians—Dr Calveit Dr Andrews Dr Walter Carr Clinical Surgery—Mr A B Barrow,

FR CS, Mr James Berry, FR CS Asst Surgeons—Mr Battle, Mr Dodd, FR CS, Mr Roughton,

FR CS Diseases of Women—Dr W Hayes Ophthalmic Surgery—Mr Grosvenor Mackinlay

Pathological Demonstrator—Di Andrews Medical Tutor—Dr Walter Carr Surgical Tutor—Mr

Roughton, FR CS Amesthetist—Miss Aldrich Blake, MD Asststants to Amesthetist—Miss Piercy

M B, Lond, and Miss Mabel Jones, M B, Lond Minor Surgery—Mr Dodd, FR CS Surgical

Fathology—Mr E W Roughton FR CS

Fee for all the Lectures in the ordinary curriculum, 200, or if paid in installments, 140 for the

first year, 225 for the second, 220 for the third year, and 210 for the fourth year, the fifth being

free The fee for Hospital Instruction is 225 if paid in one sum, or 215 for the first year, 216 for the

second, and 210 for the effect of the third year.

Information respecting scholarships &c, will be given on application to Mrs Thorne, Honorary

Secretary, or Miss Heaton Secretary, at the School

MRS GARRETT ANDERSON, M D, Dean

MISS COCK, M D, Sub Dean

### PECKHAM HOUSE.

PECKHAM.

Extensive airangements are made in this Asylum for the reception of Private Patients of both sexes

Terms from 25/- per Week.

Further particulars can be obtained upon application to the RESIDENT PHYSICIAN

### ST. JOHN'S HOSPITAL

### DISEASES OF THE SKIN. LEICESTER SQUARE, W.C.

OF CHESTERFIELD. Dresident = THE EARL

000000000000 -There are 29 Beds for In-Patients

The Out-Patient Practice may be attended free by Medical Practitioners every day (except Friday) from 1 30 to 4 pm, also on Thursdays from 10 30 to 12 30

Lectures, followed by Clinical Demonstrations on cases presenting themselves in the Out-Patient Department, are given twice a week

There are Three Courses in the year, and the Fee for a Course is £1 is VINCENT MERCIER, Secretary

### HOSPITAL FOR Consumption and Diseases of the Chest, BROMPTON.

PUPILS are admitted to the practice of the Wards and the Out-Patient Department of the Hospital, on payment of a Fee of One Guinea for one month, Five Guineas for six months, Ten Guineas, Perpetual Lectures and Demonstrations are given by Members of the Medical Staff on Wednesdays and Fridays at 4 pm Certificates of attendance on the Practice of the Hospital are recognised by the University of London, the Apothecaries' Society, and by the Army, Navy, and Indian Board

WILLIAM H THEOBALD, Sec

#### UNIVERSITY ABERDEEN. OF

FOUNDED 1494

### FACULTY OF MEDICINE.

THE Degrees in Medicine granted by the University are—Bachelor of Medicine, Bachelor of Surgery, Dootor of Medicine, and Master of Surgery. They are conferred only after Examina tion and only on Students of the University A Diploma in Public Health is conferred after Examination on Gradustes in Medicine of any University of the United Kingdom. The Faculty of Medicine embraces twelve chairs, from which instruction is given in all the main braiches of Medical Science.

braiches of Medical Science

Pachesal Classes in connection with these chairs are conducted by the Professors and Assistants in Laboratories furnished with all the necessary appliances and opportunities are afforded to Students and Graduates to extered that plactical knowledge at a trust conorganize research. Instruction is also given in special departments of Medical Practice by Lecturers appointed by the University Court.

Clinical Instruction is obtained in the Royal Infirmary, Royal Lunatic Asylum, the Sick Children's Hespiral, the City [1 ever] Ho-11th, the General Dispensary, and Lying in and Vaccine Institutions are the Ophthalm & Institution

Bursaries Sachaichips and fell withps, to the number of 46, and of the annual value of £1031, may be held by Students in this Faculty.

The cost of Matricula for Circs and Hospital Fees for the whole curriculum, exclusive of the fees for the Degrees is a truth a out it.

A prospectus of the classes, less, &c together with the regulations for Graduation in Medicine and Surgery, n by Lehad on application to the Scotch in of the kiculty of Medicine

WILLIAM STEPHENSON, M.D., Dein of Medicine

### LONDON HOMŒOPATHIC HOSPITAL

GREAT ORMOND STREET, BLOOMSBURY, W.C

### GENERAL HOSPITAL FOR MEN, WOMEN & CHILDREN,

INCLUDING SPECIAL DEPARTMENTS FOR

Diseases of Women, Diseases of the Skin, Diseases of the Eye;

Diseases of the Ear, Diseases of the Throat.

Patron HER ROYAL HIGHNESS THE PRINCESS MIRY ADELAIDE, DUCHESS OF TECK President

Vice-Patron
THE DUKE OF BEAUFORT, & G THE EARL OF WEMISS AND MARCH Vice-Presidents

LAND Adminal The Right Hon the LORD CLARENCE
PA LI K C B
MARKER THE LORD GRIMTHORPE
THE LORD NEWTON
SIR CHARLES ISHAM, BARR

THE DUKE OF NORTHUMBERLAND THE DUKE OF WESTMINSTER, K.G. THE EARL OF WE'LLSS AND MARCH THE EARL OF DYSART

### HOSPITAL STAFF

Consult Phys — Dr Dudgeon Dr Dyee Brown
Consulting Physician for Discusse of Women—
Dr G M Castrae
Consulting Sungeon—Dr Yeldham
Phissicians—Dr Galley Blackley, Dr John H
Clarke, Dr Byses Morr
Assist Physicians—Dr Washington Epps Dr
Marsh, Dr. Correspondent Dr Gavendish Molson
Assist Sungeon and Sungeon for Discusses of the
Throat—Mr Dudley Wright
The Cast Instruction of the Proceedings of the
Throat—Mr Dudley Wright

Practical Instruction in Homeopathic Thei apeutics is given daily, in the Wards, and the Out

Opnibulmue Surgeon—Mr Knox Shaw Physician for Diseases of Women—Dr G H Lurford Assistant Physician for Diseases of Women—Dr Edwin 4 Neatby Physician for Diseases of the Shin—Dr Galley

Hackley Dreams of the For-Dr R T Cooper Anasthelist-Dr Roberson Day Mehad Republic-Dr Edwin A Neatby Resident Metad Officer-Dr C E Wheeler

Patient Department

The instruction at this Hospital is specially intended for —

The instruction at this Hospital is specially intended for —

1 Medical Men who are already qualified and who desize to obtain a knowledge of Homesopathy in addition to their other acquirements

2 Medical Students in their fifth year

Full particulars may be obtained from

G A CROSS, Secretary Superintendent

### UNIVERSITY EXAMINATION POSTAL INSTITUTION.

Preparation through the Post for all the Medical Examinations of the

#### UNIVERSITY OF LONDON

and of the Royal Colleges, and for the MD (Durham), also for the

#### DIPLOMA OF PUBLIC HEALTH

or Science Examinations

(Cambridge or Royal Colleges), also for the Medical Preliminary Arts RESIDENT PUPILS RECLIVED

#### RECENT SUCCESSES.

Candidates have been successfully prepared by the Institution during 1892-4 for the M D (Lond), both in Medicine and in State Medicine, the M S (Lond), the candidate securing the Media (1893) the D P H (Camb), the final M R C S and L R C P (Eng), and the Intermediate Medicine (Lond)

Amongst Non-Medical successes 86 passed the Cambridge Higher Local Examination,

of whom 18 took distinction in different subjects, and 5 others a First Class
One candidate obtained Honours in the LL B (Lond Univ)
The Medal in Physical Geography was obtained in the Cambridge Senior Local
Examination Honours were obtained in the Matriculation

A List of successes will be sent on application

There are 26 lutors in the Institution, of whom almost all are Medallists, or have obtained First Class Honours, or the Highest Degrees

For a Prospectus and all information apply to the Manages of the Institution,

MR E. S. WEYMOUTH, M A. (LOND), 27. Southampton Street, Strand, LONDON, W.C.

### THE LONDON ASSOCIATION OF NURSES.

Chief Office—123, NEW BOND STREET, W. Branch Office—86, KENNINGTON PARK ROAD, S.E.

Superior Hospital-trained Nuises for Monthly, Medical, Surgical, Mental, Fever, and Small-pox Cases, also Male Attendants, Male Nurses, and Medical Rubbers, can be obtained immediately on application to the Superintendent

Great care is taken in the selection of Monthly Nurses, who reside in a separate home and never come in contact with those who attend infectious cases.

### HOME HOSPITALS FOR THE WELL-TO-DO.

Invalids can be received under the care of their own Physicians, each Patient being provided with a separate room

M. FIRTH, Superintendent.

Telegraphic Address-" FIRTH'S ASSOCIATION, LONDON"

### SOUTHPORT.

### NERVOUS AFFECTIONS.

PRIVATE ESTABLISHMENT at the Seaside for Lady Patients suffering from Hysteria and Nervous Affections.

The Home is pleasantly situated in this well-known health resort Patients will find every comfort Massage, Baths, and Electrical treatment by the Proprietress of many years' experience Highest references

### Terms from Two Guineas to Five.

Telegrams, "EMERGENCY"

Telephone, 72

Mrs. KRAUSE, Proprietress, 8, Manchester Road, SOUTHPORT.

ESTABLISHED 1881

Nurses sent to all parts of the United Kingdom from One Guinea per week

THE

### HANOYER INSTITUTE FOR NURSES,

22, GEORGE STREET, HANOVER SQ., LONDON, W.,

1, LISMORE ROAD, EASTBOURNE.

TELEGRAMS

"EASINESS, LONDON" "EASINESS, EASTBOURNE."

### SOPHIA WALKER,

(Certificated Medical and Surgical Nurse, Diplomée, LOS)

### Matron and Proprietress

S UPPLIES the Public with reliable Hospital-trained Nurses The Staff reside on the Premises Within ten minutes of the receipt of a telegram a Nurse can be on her way to the case

All Nurses from infectious cases undergo quarantine, at a Special Home provided for the purpose, prior to returning to the Institute

Applications, stating nature of the illness and any particulars which might assist in the selection of a Nurse, to be made to either of the above addresses

### TERMS-PER WEEK OR PART OF A WEEK.

Medical Cases	-	-	-		-	-	£2	2	0
Surgical ,,	-	-	-	-	-	-	2	2	0
Mental ,,	-	-	-	-	-	-)			
Massage -	-	-	-	-	-	- }	3	3	0
Fever and all Ir	nfect	ious	Cas	es	-	-)			
Accouchement (	the I	Mont	:h)	-	•	-	10	10	0
Masseuses are also supplied at 7s 6d. per visit									

TRAVELLING EXPENSES, AND 2s 6b PER WEEK FOR WASHING,
TO BE PAID TO THE NURSE
44

### THE DEAF, & THE SO-CALLED "DEAF AND DUMB,"

Society for Training Teachers of the Deaf, and Diffusion of the "German" System.

FOUNDED 1876

INCORPORATED 1886

PRESIDENT-HIS GRACE THE ARCHBISHOP OF CANTERBURY.

The "German" or Pure Oral System teaches spoken and written language to the Deaf and "Dumb" It dispenses entirely with signs and the finger alphabet, and with the necessity in after-life of using pencil and tablets. Lip-reading taught to persons becoming deaf in adult life

The Training College and School of the Society is situated at Castlebar Hill, Ealing, Middlesex  $\,$ 

Applications for the admission of Students and Pupils should be addressed to

MRS ARTHUR KINSEY, Lady Superintendent and Secretary

# THE MARY WARDELL ConValescent Home for Scarlet FeBer.

STANMORE.

The Home stands in grounds of 4 acres, 450 feet above the sea level, 10 miles north-west of the Marble Arch A large day-room and dormitories for 22 persons (Women and Children) of the working classes, and separate bedrooms, with a drawing-room and a dining-room, for the upper classes, at higher charges

The Omnibus of the Home fetches the Convalescents from their homes

or hospitals

Rules and Terms of Admission may be obtained from the Honorary Sucretary,

MISS MARY WARDELL, STANMORE, MIDDLESEX.

### MILDMAY NURSING HOUSE,

9 & 10, NEWINGTON GREEN, LONDON, N.

(Nursing Branch of the Mildmay Deaconesses' Institution)

Resident Superintendent, Miss DEAN Trained Sisters and Nurses are sent into private families from this Establishment Railway Station—Mildmay Park

General Diseases

£I II 6 per week
Infectious Diseases & Operations, also Typhoid & Cancer 2 2 0 for first and second weeks

, , , II 6 for third & following weeks
Telegrams, Travelling, and Laundress extra, and in infectious cases, 15/- on leaving

# OLIFTON, BRISTOL, NURSES' CO-OPERATION AND HOME, WESTBOURNE, CLIFTON.

Medical, Surgical, Monthly, and Mental Nurses supplied Also Masseuses Patients received Occasional Vacancies for fully-qualified Nurses Address Miss Rogers

\*Telegrams - "Efficient, Bristol" Telephone No 640

# ROYAL SOUTHERN HOSPITAL

Physicians—Dr J Cameron, Dr W Carter, Dr W Williams,
Surgeons—Mr H G Rawdon, Dr W Alexander, Mr Robert Jones
Pathologist—Dr F H Barendt Dentist—Mr J Royston.

Medical Intor—Mr C J Macalister Surgical Tutor—Mr W H C Davcy
Senior House Surgeon—Mr Wm Clooke
Junior House Surgeons—Mr C R Edmondson, Mr J Marsh

200 Beds Clinical Lectures given by the Physicians and Surgeons during the Winter and Summer Sessions Clinical Clerkships and Dresserships open to all Students Special Wards for Accidents and Diseases of Children Rooms for a limited number of Resident Students Fees for Hospital Practice and Clinical Lectures—Perpetual £26 5s, One Year, £10 10s, Six Months, £7 7s, Three Months, £4 4s. The practice of the Hospital is recognised by all Examining Bodies

### NURSES' CO-OPERATION

AND HOME FOR PAYING PATIENTS.

28, WINDSOR STREET, LIVERPOOL

CERTIFICATED NURSES sent to any part of the Kingdom upon the shortest notice by applying to the Matron, Miss Watson

Nurses supplied for all Cases from One Guinea per week.

ALSO MALE ATTENDANTS ALL ABSTAINERS.

PATIENTS RECEIVED IN THE HOME.

### THE HAMILTON ASSOCIATION FOR PROVIDING

### TRAINED MALE NURSES, 57, PARK STREET, GROSVENOR SQUARE, LONDON, W.

The Committee are prepared to supply Trained Male Nurses for Medical, Surgical, Mental, and Dipsomania Cases in either town or country, at the shortest notice lerms from Two to Four Guineas a week. Skilled Masseurs sent out (by the hour if desired) Travelling Attendants for Invalids Last Annual Report, Rules, &c, sent post free on application to the Medical Superintendent as above

NB-The Association does NOT supply Female Nurses. Telegraphic Address. "Alumnus, London."

## CAUTION.



T is with much regret that the Proprietors of

### HALL'S COCA WINE

are compelled to warn the Medical Profession that there are many so-called "Coca Wines" now being sold which are absolutely useless as a stimulant, owing to the fact that they contain only traces of Coca, quite insufficient to affect the nervous tissues of the body

Each wineglassful of our preparation equals one drachm of the leaves, and is considered a sufficient dose for an adult

HALL'S COCA WINE is not a patent medicine, and there is no secret in its manufacture. It is simply an economical preparation of Coca prepared in the form of a highly palatable wine and eminently suitable for delicate patients who object to take drugs, or persons who have scruples about taking Brandy, etc, as a stimulant

### <u>ক্রেক্রক্রক কে কে কে কে কে কে কে কে</u> The following is one of hundreds of Testimonials received:—

M D (1847), M B (1841), F R C P, &c, &c, writes —"I am glad that my suggestion of the real composition of 'Hall's Coca Wine' is likely to be useful—I am sure that the plan of stating exactly the composition of various articles offered is the only way of gaining the confidence of the Medical Profession, indeed, as a physician, I practically NEVER order preparations of which the composition is kept secret—Please send a half dozen 3s 6d size, for which I enclose cheque"

SAMPLE BOTTLE POST FREE TO ANY MEDICAL MAN IN THE UNITED KINGDOM.

PRICE 3/6 PER BOTTLE.

Medical Profession, 32s. per dozen, carriage paid.

### STEPHEN SMITH & CO., BOW, LONDON, E.

THE

# Breakfast Beverage

(Par Excellence).



THE above preparation of Coffee is a dietetic liquor of great medicinal value, the liability of Pure Coffee to induce Dyspepsia being obviated by a special Patent Process of the introduction of Malt, and may be prescribed with every confidence

**PATENTEES** 

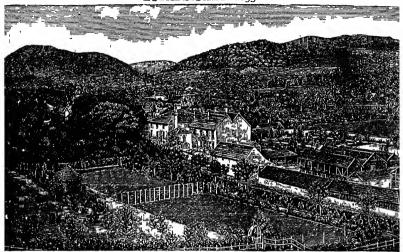
### BLACKMORE & Co., Victoria Street, BRISTOL,

AND AT LONDON, BIRMINGHAM, ETC.

#### CHURCH STRETTON ASYLUM,

STRETTON HOUSE, CHURCH STRETTON, SHROPSHIRE.

ESTABLISHED 1853



This Institution is exclusively for the reception of Gentlemen of the I pper and Mildle lyses. Its popularity and success must be attributed in a great measure to the open

This Institution is excusively for the reception of centiemen of the types and attack. Classes Its popularity and success must be attributed in a quart measure to the open manner in which it is conducted, instead of being a place to be avoided, as asylums were in times part, it is the resort of the better class families for receivation and amusement, and we are of opinion that the proprietor has taken a step in the right direction, and one that will still further command the confidence of the public, by providing accommodation for the friends of patients, who will thus have an opportunity of satisfying themselves as to the mode of treatment and the comforts afforded. The charges are moderate, according to the requirements of the patients—From the "Medical Philass" in above sea level), amidst the most charming mountain scenery, and has a very invigorating and bracing atmosphere. One great object of this institution is to find healthy and congenial occurrence of the patients to interest the medical treatment. Every inducement is held out for patients to interest themselves, either on the large farm attached to the house, and which supplies direct both beef, mutton, and agricultural produce on in the workshops, in gaidening, &c. There are numerous terms courts and a private clicket ground, also a capital golf links, carriage exercises is provided for those who desure it, and walks of several miles in length can be had in the grounds and on the hills without going on the public road. One result of these facilities is that just 50 per cent of the patients are on parole (having very considerable liberty) on have fived occupations to interest themselves in daily, and thus the almost unavoidable feeling of restraint is very largely decreased. decreased

decreased
The house has recently been enlarged and renovated, handsome surtes of rooms being provided for first class cases
Medical men are conductly invited to visit this Asylum and judge of its advantages for themselves, if desired, an album containing photographs of the house and surrounding scenery will be forwarded
A charming sea side resi? nee has recently been rented for the benefit of convalescent patients
Reference permitted to reports of Commissioners in Lunacy and many Medical

patients Reference permitted to reports of commissioners in considerable patients. Reference permitted to reports of commissioners in the country of the friends of patients and a few voluntary patients can be received as boarders. Church Stretton is on the Shrewsbury and Hereford main line, 12 miles from Shrewsbury, and can be reached from London (Buston or Paddington) in 44 hours, Bin mingham 14 hour, Birstol 4 hours, Livenpool and Manchester 24 hours Edinburgh and Glasgow 8 hours, Derby and Nottingham 5 hours. Stretton House is ten minutes walk from the Station Apply to the Supt., C W Campbell-Hyslop, Stretton House, Church Stretton Medical Supt., Dr. Horatto Barnstty, M.A., M.B. and B.C. (Cantab), M.R.C.S. and L.R.C.P. (Lond.)

Attendants Supplied on Shortest Notice



#### THE GROVE, JERSEY.

Proprietor F. NEEL GAUDIN, M PC, M R.CS Eng, L.S A Lond

A HOME for a limited number of Ladies and Gentlemen of the Upper Classes afflicted with Nervous and Mental Diseases

The Estate is healthily situated on the high ground, 2 miles from St. Heliers, commanding extensive views over St. Aubin's Bay with its islet Forts, and the towns of St. Heliers and St Aubin's with their shipping, and complises ir acres of Ornamental Grounds of great

beauty, besides Gardens and Farm land and a Mansion of handsome proportions. The Non Restraint system in its fullest sense is followed, and methods savouring of "Institutionism" are carefully excluded, the object being to secure for Patients the

Comforts and Privacy of Home

The daily routine, the arrangements and appointments generally, ie emble more those of a good English Country House than those of an Asylum

The Grove (owing to its Southern aspect and protection from the North and Fast, together with the natural mildness of the Jersey climate) is especially suited to those whose constitutions are delicate or temporarily reduced through Alcohol, Drugs Hysteria, or Nervous and Mental Diseases, whilst from its lofty situation the air is bracing and invigorating

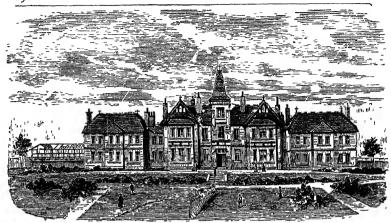
The Amusements and Occupations include Golf Tennis (Giass and Gravel Courts), Croquet, Boating, Billiards, Gardening and Faiming, &c., Horse and Carriage Exercise Sea Bathing (hot and cold), Private Machines on beach, to minutes, walk

There are Associated and private rooms, or self contained suites of 2, 3, or 4 rooms Voluntary Boarders and Friends of Patients can be accommodated. Special arrangements can be made for Ladies and Gentlemen wishing to have their own servants or private horses and carriages with them

For Terms and particulars (descriptive, legal, means of access, &c), apply to-

Dr F. NEEL GAUDIN, Resident Medical Proprietor.

Telegraphic Address - "GROVE, JERSEY"



#### SHAFTESBURY HOUSE. FORMBY-BY-THE-SEA. Near LIVERPOOL

Private Asylum Licensed for the Treatment of Ladies and Gentlemen mentally afflicted.

VISITING PHYSICIAN—IHOMAS R GLYNN, MD Lond, FRCP Lond, Seniol Physician Liverpool Royal Infirmary CHAPLAIN-Rev J B RICHARDSON, M A, Green Lea, Formby

Plans approved by Commissioners in Lunacy —This Asylum has been erected from plans approved by the Commissioners in Lunacy, and in every possible way in accordance with the modern ideas of the treatment of Mental Disease

The Rooms throughout the building are large, any, cheerful, light, very brightly furnished, and, as the walls are tinted in various colours, there is a complete absence of

anything approaching to duliess or gloom

We'ming, Ventilation, and Drainage—Each Sitting Room, Dormitory, and Cor idor is warmed and ventilated by special means besides the ordinary frieplace, and the dramage is perfect Sea Air -This Asylum, being situated about a mile from the sea, Patients have the

benefit of sea air Private Rooms. -- Private Rooms and special attendants provided whenever required

Accommodation for Friends -Friends of patients wishing to be near during treatment can be accommodated

Grounds and Amusements .- There are about ten acres of ornamentally laid out Pleasure Grounds, which afford ample privacy and room for exercise, Lawn Tennis and other amusements

Medical Opinion -The Asylum has been visited by a large number of medical men in Liverpool and neighbourhood, all of whom have expressed themselves as highly pleased with the arrangements

Train Service - Formby Station is about ten minutes walk distant from Formby nearly every half hour to Southport, as also to the Exchange Station, Liverpool, and there is now direct communication with the North, and with London, and the South of England by means of the London and North-Western Railway

Terms, &c .- Terms and all information can be obtained from

STANLEY A. GILL, B.A., M.D., M.R.C.P. Lond. Resident Physician. THE

## ASYLUM for IDIOTS,

# EARLSWOOD, REDHILL,

#### Under the Patronage of Her Most Gracious Majesty the Queen.

This National Institution has accommodation for 700 Patients, and all that Science and Improvement of the Inmates.

Provision is made for Payment Pitients, commencing at 60 guineas a year, including Clothing, or higher rates, according to the requirements of the case, and they have all the conforts of a Private Home, as well as instruction and unusument. Proposals for admission to be addressed to the Secretary, who will supply the Forms and all information on application.

Inmates are also received each half-year by the votes of the Subscribers

An Annual Subscriber has One Vote at each Election for each Half Guinea contributed, and a Life Subscriber has One Vote at each Election during Tife for each Five Guineus contributed

H GERARD HOARE, ESQ, Theasurer JAMES DOWNING, SECRETARY

OFFICES
36, KING WILLIAM STREET,
LONDON BRIDGE E.C.

#### BOREATTON PARK.

THIS PRIVATE ASYLUM, which was founded by the late W H O SANKEY, M D, F R C P, for the reception of a limited number of ladies and gentlemen mentally afflicted, is now conducted on the same lines by his son, E. H O SANKEY, M A, M B, B C Cantab

Dr Burd, Newport House, Shiewsbury, M D and M.C Cantab, Consulting Physician to the Salop Infilmary, and to the Salop and Montgomery Lunatic Asylum, &c, is Consulting Physician, and visits the House once a month, and oftener if required.

The Mansion stands high, among handsomely laid out gardens in the midst of a picture-sque deer park (about 70 head of deer are kept), and commands a magnificent view of Welsh mountain scenery

Carriages, horses, lawn-tennis, golf, trout and other fishing are provided. The Asylum is situated about ten miles from Shrewsbury, within easy distance of Baschurch Station, G.W.R., whither carriages can be sent at any time for visitors.

DR. SANKEY, Boreatton Park, BASCHURCH, SALOP.

## ST. GEORGE'S RETREAT,

BURGESS HILL. SUSSEX.

This Private Asylum is under the management of a community of Augustinian Nuns It receives Catholic Patients of both sexes, the ladies being under the immediate care of the Sisters A Chaplain and a Medical Man reside in the house, and the Patients are also visited regularly by a physician of special experience. The establishment is supplied with every requisite for the treatment and well-being of the Patients, and the grounds (of 250 acres) in which it stands afford ample space for their recreation and exercise It is within two miles of Burgess Hill Station, on the London and Brighton Railway, and is easily accessible from all parts of the Kingdom

For particulars and terms apply to The Rev Mother Superior, St George's Retreat, or to Dr GASQUET, 127, Eastern Road, Brighton

# MUSSELBURGH, MIDLOTHIAN.

Private Asylum for Mental & Aerbous Invalids of the Upper and Middle Classes.

A LIMITED NUMBER ONLY RECEIVED.

THE COMMISSIONERS IN LUNACY SAY
"The House presents its usual aspect of cheerfulness and comfort The arrangements differ very slightly from those of a private house, and there is no dailt that the less of such difference there is the better it is for the patients."

Proprietor. P MACKENZIE Resident Physician A W MACKENZIE T R SCOTT, MD Consulting Physician

Terms, etc., on application to the Proprietor, or to the Resident Physician

#### ABBEY GREEN, JEDBURGH.

Established 1871 Enlarged 1894

Dr Blair receives into his House a limited number of Patients suffering from Mental and Nervous Disorders

Dry Climate

Beautiful District

Moderate Terms

#### THE LAWN, LINCOLN.

Registered Hospital for Mental Diseases, containing from 60 to 70 patients, situate in the City of Lincoln, close to the Cathedral

FOR TERMS APPLY TO

RUSSELL, Resident Medical Superintendent.

Luensed under Government Inspectors' Supervision,

As Hospitals for the Medical Care and Treatment of Patients of the Upper and Middle Classes suffering from

#### AND NERVOUS DISEASES. MENTAL

HIGHFIELD

FOR LADIES.

HAMPSTEAD

FOR GENTLEMEN

#### DRUMCONDRA, Near DUBLIN.

Telephone No. 1032.

Voluntary Patients admitted without Medical Certificities

Patients suffering from the Disease of Inebriety can be admitted either voluntarily or under Medical Certificates

Relatives or Friends who desire to reside in the establishments with Patients can do so

There we cottages for special cases on the demesne (154 acres)

Carringe and horse executes is provided for the patients in the best manner. The Proprietor, JOHN LUSTACE, BA, MD Univ Dub, LRC5[, JP, assisted by HENRY MARCUS EUSTACE, BA, MB, BCh Dub Univ (Late Chinical Assistant, Royal Asylum, Edinburgh), resides in the Establishments.

Members of the Medical profession and all persons properly interested in Patients, are invited to visit and inspect these establishments at any time they please. Further information can be obtained from Drs. EUSFACE at Drumcondra, or at their Office, 4x, Grafton Street, Dublin

# ROOK HOUSE, J

For the Care and Treatment of Ladies and Gentlemen Mentally afflicted.

> ESTABLISHED 58 YEARS.

#### Diopiictois:

DR. LIONEL A WEATHERLY | DR C SPENCER COBBOLD,

MRS LIONEL A WEATHERLY | Late Superintendent Earls wood Asylum

Resident Medical Proprietor. DR LIONEL A WEATHERLY

Beautiful Mansion standing in 30 acres of well-wooded Park, with lovely views of Bath and surrounding scenery Fifteen minutes' drive from G W R. and Midland Stations, Bath. Telephone No 49.

Horses & Carriages, Billiards, Lawn Tennis, Fishing, Boating, etc.

Great Improvements have recently been made in house and surroundings, Vule Visitors' and Commissioners' Reports

A New Wing has been ADDED WITH EVERY MODERN IMPROVEMENT.

Terms inclusive from 21 to 10 guineas per week, according to circumstances of case and accommodation required.

## KINGSDOWN HOUSE,

BOX, WILTS.

A Private Home, with every comfort and convenience for those suffering from Mental and Nervous Diseases.

The situation is most healthy and picturesque, amongst the Wiltshire Downs, fifteen minutes from Box Station, and five miles from Bath

The house stands in its own grounds, in the gardens of which the Patients employ and amuse themselves with tennis, croquet, &c, and the close proximity of country walks affording them the great advantage of extended exercise.

Voluntary Boarders can be received under the New Statute without Certificate

Friends of patients, if desirous, may reside in the house pro tem

Terms moderate, for which apply to

H. CRAWFORD MACBRYAN, Res. Med. Supt.

Late of the London County Asylum, Hanzvell, W

#### BISHOPSTONE HOUSE, BEDFORD.

One hour per rail from St Pancras

A Home (established 1877) for the care and treatment of ten Ladies suffering from Nervous and Mental diseases. All modern methods of treatment employed. Turkish Bath, &c. Congenial occupation, amusements, and all possible freedom consistent with safety allowed. When desired patients are treated under the direction of their own medical adviser Voluntary boarders under the Act 1890 can be received.

Address Dr CRAIG, Medical Superintendent

#### WEAK INTELLECT.

GROSVENOR,

84, AUCKLAND ROAD, UPPER NORWOOD, S.E.

EDUCATIONAL HOME for Boys of the Upper Classes, under experienced and successful Management Highly recommended by Medical Men For Terms, address Miss ARKELL

#### SCOTTISH MEDICAL AGENCY

JAMES LOGAN, 95, Bath Street, Glasgow.

Medical PRACTICES Transferred and PARTNERSHIPS arranged. ASSISTANTS supplied free Locums 10s 6d Debts collected, &c Practices for Disposal in Scotland and England. List free.

#### THE GOVERNORS OF

THE

#### ROYAL HOSPITAL OF BETHLEHEM

Are prepared to receive a limited number of Patients at Two Guineas a week, inclusive

All particulars may be obtained from the Resident Physician or the Steward of the Hospital,

#### ST. GEORGE'S ROAD,

LONDON, S.E.

#### THE WARNEFORD ASYLUM, OXFORD,

FOR THE CARE AND TREATMENT OF INSANE OF BOTH SEXES OF THE UPPER AND MIDDLE CLASSES.

Diceibent. The Right Hon the Earl of Jersey Chairman of Committee: The Rev the Warden of New College, Oxford.

THE Asylum is pleasantly situated on Headington Hill, and has been recently enlarged, the new accommodation being arranged, as far as is compatible with the requirements of an Asylum, in the manner of an ordinary private residence

The ordinary charge for Patients is £2 2s a week, but the Committee have power to increase or reduce the charges at their discretion. When a reduction of the ordinary charge is asked, a statement of the circumstances of the Patient should be made by letter to the Committee.

Voluntary Boarders are also received

Special Rooms and Attendants may be had if required
For further particulars apply to the Medical Superintendent,

J BYWATER WARD, MD

Prívate Asylum,

# FIDDINGTON HOUSE, MARKET LAVINGTON, WILTS.

This is a quiet and refined Home for a limited number of Ladies and Gentlemen, situated most pleasantly and healthily in about thirty acres of pleasure-grounds, gardens, &c. The domestic comforts and arrangements are personally superintended by Mrs. HITCHCOCK Every out-door and in-door amusement is provided for the patients, including tennis, croquet, billiards, music, dancing, and carriage exercise

There is now a vacancy for a Lady or Gentleman—For terms apply C. HITCHCOCK, M.D., Prop. and Resident Med. Supt. Boarders received under the new Lunacy Act without certificate.

# BARNWOOD HOUSE, GLOUCESTER.

A Registered Hospital for Private Patients only, of the upper and middle classes Arranged and furnished with all the most approved appliances for the treatment, comfort, and amusement of the inmates Within two miles of the Railway Station, and easily accessible by Rail from London and all parts of the kingdom. Is beautifully situated at the foot of the Cotswold Hills, and stands in its own grounds of 240 acres —For Terms, &c, apply to—

JAS. GREIG SOUTAR, M.B., C.M.,

Resident Superintendent

#### WONFORD HOUSE (HOSPITAL FOR THE INSANE),

NEAR EXETER

A Registered Hospital for the Upper and Middle Classes

This Institution is situated in a beautiful and healthy locality, within a short distance of the City of Exeter. There is comfortable accommodation at moderate rates, both in the Hospital itself and at Pl intation House, Dawlish, a seaside residence on the South Devon Coast, affording more privacy, with the benefits of sea-air and a mild and salubrious climate. Private rooms and Special Attendants provided, if required. Voluntary Patients or "Boarders," not under certificates, also received

For Terms, &c, apply to P MAURY DEAS, MB, MS Lond., Resident Medical Superintendent

TREATMENT OF INEBRIETY.

## DALRYMPLE HOME,

RICKMANSWORTH, HERTS.

For Gentlemen, under the Act, and privately.

TERMS, 2 TO 5 GUINEAS.

APPLY TO

R. WELSH BRANTHWAITE; Medical Superintendent

### HAYDOCK LODGE,

#### Newton-le-Willows. LANCASHIRE.

Is charmingly situated in a healthy and retired neighbourhood, midway between Liverpool and Manchester, about 2 miles from Newton-le-Willows Station on the London and North Western Railway It is a comfortablyfurnished Country Mansion, especially adapted for the care and treatment of persons of unsound mind

Besides the use of the general sitting-rooms, &c , patients of both sexes can have private apaitments and special attendants at moderate rates of Information as to terms, &c, may be obtained on application

to the Resident Medical Superintendent,

#### CHARLES T. STREET, L.R.C P. Lond, M.R.C.S. Eng.

Teligrams. STREET, ASHTON-IN-MAKERFIELD" Telephone (National) NO 3, ASHTON-IN-MAKERFIELD"

Dis. Pbys .- AI EX DAVIDSON, M D , F R C P , Phys to the Liv Roy Infirm

# FLOWER HOUSE, CATFORD, SE.

A Sanatorium of the highest class for the treatment and care of gentlemen of unsound mind.

APPLY TO

#### $DR.\ MERCIER.$

RESIDENT MEDICAL SUPERINTENDENT

- 000000000000 NB—Under the New Act voluntary boarders can be received on their own personal application

#### PLYMPTON HOUSE, PLYMPTON, SOUTH DEVON.

ESTABLISHED 1834.

Plympton House is the only Private Asylum in Devon and Cornwall It is licensed for 23 male and 21 female patients. The house, which is a fine old country mansion, is situated in the midst of an estate of 30 acres of Park land, is five miles from Plymouth, and one mile from the Plympton Station of the Great Western Railway The climate of South Devon is such as to recommend this Asylum as being particularly fitted for Insane Persons who are the subjects of Pulmonary Diseases Male Patients can be received at present on particularly favourable terms.

Letters and Telegrams should be addressed to

Dr ALDRIDGE, PLYMPTON, SOUTH DEVON,

The Resident Physician and Proprietor

## HIGH SHOT HOUSE,

ST. MARGARET'S, TWICKENHAM,

MIDDLESEX.

Consulting Physician -T. R. LEESON, M.D.

Resident Medical Superintendent -

F. H. BROMHEAD, B.A., M.B. Camb., M.R.C.S. Eng., L.R.C P. Lond.

For Gentlemen suffering from Alcoholism, Morphinomania, and the abuse of drugs

Patients admitted under the Acts and privately

For full particulars apply to the SUPERINTENDENT.

TERMS - 2½ TO 5 GUINEAS
TELEGRAMS—"HIGH SHOT, TWICKENHAM"

#### NORTHWOODS HOUSE,

WINTERBOURNE, NEAR BRISTOL.

#### Private Asylum for Ladies and Gentlemen.

Situated in a large park in a healthy and picturesque locality, easily accessible by cab from Bristol, or from Fishponds, Yate, or Patchway Stations

THE BUILDING IS FIREPROOF.

For further information see London Medical Directory, p 1889, and for Terms, &c , apply to Dr EAGER, Resident Physician, Northwoods House

Dr Eager attends at 64, PARK STREET, BRISTOL, on Mondays and Thursdays, from 12 to 3 o'clock

#### MALLIFORD MOUSE,

SUNBURY, MIDDLESEX.

ESTABLISHED IN 1841 BY

#### The Late JOSEPH SEATON, M.D., F.R.C.P. Edin.

This beautiful Residence, standing in park-like grounds of thirty acres, is appropriated to the reception of a limited number of Patients of the higher classes, who may be suffering from Mental and Nervous Affections, and who are under the constant care of the Resident Medical Superintendent.

Halliford House is situate sixteen nules from London and four from Hampton Court, and is easy of access—the Thames Valley Branch of the South-Western Railway has a Station at Sunbury. It is also easy of access from the West of England by means of the Reading and Richmond Line, the Feltham Station of which is distant three miles—It is equally easy of access from the South of England, being only three miles from the Walton Station of the South-Western Main Line

Apply to RESIDENT MEDICAL SUPERINTENDENT.

#### Education and Home Comforts for Boys of Feeble Intellect.



#### HOUSE. REARSTED BEARSTED

(Near Maidstone)

Superintendent and Proprietor. G. T A'VARD. Late Head Master of Parlswood Asulum

BEARSTED HOUSE stands on its own grounds of four rates, and is pleasantly situated A Medical Gentleman remarked of Bearsted "It is one of the pretuest and healthiest villages in England" The house is commodious and the rooms are lofty. The grounds are secluded and are not overlooked in any way Bearsted Station is on the L C & D Ry, from Victoria, &c (without changing carriages) From the South and the South-East Coast via Ashford BEARSTED HOUSE

is hive Minutes walk from Bearsted Station

"I can with the greatest confidence recommend any parent who has a child with a clouded intellect to send it to Bearsted House "John Johnston, Sungeon A Doctor writes to the Lamet —"A better place for weak minded boys there cannot possibly be A personal visit has convinced me that many parents with afficted children would be rejoiced to hear of such a home for them"

"Mr A VARD has a peculiar tact in his dealings with weak minded children, which enables him to gain in influence over them that I have not seen in any other person he is an excellent diciplication, which enables him to gain in influence over them that I have not seen in any other person he is an excellent diciplication, and has manner and was always a faculity with his pupils. I wish him every success in the undert thing he has entered upon to establish a Home for those of feeble intellect "—11.8 Hall, Fig., M B I ond.

The Rev N C writes —"We all find him improved in many ways, but more particularly in the point where he was most of all distinct, that of obedience. There was no instaking the genuine pleasure with which he halled "Dear old Bursted" when we arrived at the station on his returning to you.

"At the time I held the office of Head Master to the Earlswood Asylum, in Mr A'VARD I had avery energetic and painstaking conditions the sylund Millitary Band Hens well nequainted with the various meteroide intellecting metality wish bin massens." MI Lank Wood of the press writes —"The evident confidence of all."

From a bather —"Dear Sir, it was through Dr Savage, of lightlein Hospital, that I placed my son under your care so ne seven yours ago. I am very glad that he recommended you, as the close your trained to be really good and your establishment very healthy, any and bracing. So far as I have been able to judge in my visits, there is a great deal of the 'home' element and a good feetling all round."

"DEAR MR A VARD.—I am so pleased with the improvement in my boy. He is altogether

element and a good feeling all round."

"DEAR MR A VARD,—I am so pleased with the improvement in my boy. He is altogether different and he tells me he has never been as happy in his life as he has been this vear with you."

"I have heard Mr A VARD spoken of by the friends of patients in the highest estima le manner. I consider him a man of great integrity."—ROUPET JOYS, Faq, Wh., Lond., M.R.C.S.

"My DEAR MR VVARD,—I was pleased to see the regard my brother and the others have for you. Your establishment only requires to be known to ensure you the success I wish you."

"On the states of day tors in Lovelon. I have just brought my on the Aller of day tors in Lovelon. I have just brought my one."

"On the advice of dotters in London I have just brought my son here, and am kuxing the hassurance that the boys are in excellent hands. There are no bud cases, and the huds sppear cheerful and happy, with every comfort about them.—It D. Capital, Royal Navy

# BACKWARD AND FEEBLE-MINDED CHILDREN.

# Minchester House,

Kingston Hill, SURREY.

A Private Home for the Care, Education and Treatment of Backward and Feeble-Minded Children of good social position (not under certificates). A limited number, capable of improvement, are received. The education is of a special character, adapted to the requirements of each child, who receives personal supervision, individual care and attention, as well as all the comfort and privacy of home life. The house stands on an elevated position in grounds of three acres, on gravel soil, and is close to Coombe Wood and Richmond Park. The arr is bracing, and there are pleasant walks in the neighbourhood. It is reached by a drive (twelve miles) from London, or by the Norbiton Station on the South Western Railway, one mile distant

For further particulars, apply to the RESIDENT PHYSICIAN, late Medical Superintendent for eighteen years in a large Institution for Feeble-Minded Children

#### Downside Lodge, Chilcompton.

Near BATH

This Home (long-established) for the Training and Education of Guls of the Upper Classes, who are Mentally Afflicted and unfit for ordinary schools, is under the personal care and superintendence of Miss PAGE, who has had much experience in such cases References to Medical Men and others—Terms, &c, on application

#### COURSE LODGE, RICH-HILL,

ESTAB

COUNTY ARMAGH.

[1861

Private Institution for MENTAL and NERVOUS INVALIDS,

EXCLUSIVELY FOR THE RECEPTION OF LADIES

tResident proprietors—Messes WILLIAM and JAMES ORR Supervisional Manazement—Miss ORR

Usetting Physician—ROBERI GRAY, MRCPI, Aimagh
Consulting Physician—J MANSERGH PALMER, FRCS, MRCPI, Visiting and
Consulting Phys to District Lunatic Asylum, Aimagh

This Institution provides accommodation for Fi teen Ladies. The Patients are under the immediate supervision of Miss Orr and the Family Those are extensive and beautiful views from the House and the surrounding Farm, which contains over 50 acies. The Gardens and Pleasure Grounds afford ample 100m for the Ladies' recreation

Terms Moderate Prospectus on application to the Proprierors

#### EDUCATIONAL HOME

FOR

# Children of Retarded Mental Development.

#### DR. SHUTTLEWORTH,

for twenty-three years Medical Superintendent of the Royal Albert Asylum for Imbedie Children, Lancaster, receives into his Private Residence a limited number of Pupils, who, in consequence of mental backwardness or peculiarity, require special training under Medical Supervision

The House stands in extensive grounds on the summit of Richmond Hill, adjoining the Park.

FOR TIRMS AND PARTICULARS, APPLY TO

G E SHUTTLEWORTH, BA, MD., ETC,

ANCASTER HOUSE, RICHMOND, SURREY

NB-Patients requiring to be certified under the "Idiots Act" not received

## ROYAL ALBERT ASYLUM.

LANCASTER.

A HOME AND SCHOOL FOR 600 IMBECILE YOUNG PERSONS OF BOTH SEXES.

Under the Patronage of Her Majesty the Queen.

#### BRUNTON HOUSE.

BRUNTON HOUSE, Lancaster, is a Branch Establishment of the ROVAL ABERT ASTUM. It provides, for a small number of Feeble minded Pupils of the Upper Classes, the retirement and comforts of a PRIVATE HOME, with the instruction, occupations and amusements of a large Public Institution under responsible management

Extensive private grounds, salubrious and picturesque situation, with

chaiming views of Morecambe Bay, the Lake Mountains, etc. Chairman of the Central Committee of the Royal Albert Asylum

The Right Hon Sir John T. Hibbert, K.C.B., M.P. Meli al Superintendent. Telebord Smith, M.A., M.D.

I or terms and other information, apply to

JAMES DIGGENS, PRINCIPAL AND SECRETARY,

Royal Albert Asylum, Limitates

#### THE HAMMAM OR TURKISH BATH,

76, JERMYN STREET, S.W.,

(FOUNDED 1862)

Total number of Bathers to 31st Oct., 1894—1,051,058.

The Bath is open daily from 7 a m to 9 p m, on Sunday from 9 a m to 3 p m (Entrance by side door)

#### TERMS OF ADMISSION.

Annual Ticket . . . . £8 8s.

7 a m to 7 p m Single Ticket 4s Six Tickets 20s Twelve Tickets 36s (3s each)

After 7 p m . Single Ticket 2s

Members of the Medical Profession (on presenting their card) can obtain Medical Tickets at the reduced rate of 2s

No Tickets issued after 8 p.m Bath closes at 9 p.m.

#### CAFÉ, OR RESTAURANT.

Breakfasts and Luncheons are served from 8 a m to 5 p m, according to a fixed tariff Oriental dishes are supplied Coffee, Chocolate, Sherbet, Tobacco and Light Wines are also sold during the hours the bath is open Hair Dressing Gallery in the Bath for the use of bathers

Messrs Gregory & Mackintosh, Chiropodists, of 132a, Regent Street, have, for the convenience of Bathers, a private room in the Bath, where they are in attendance daily

#### PHILP'S DUNBLANE HYDROPATHIC,

PERTHSHIRE.

Recently acquired by Mr Philp, Late Proprietor of the Cockburn Hotel, Edinburgh

Situated m one of the healthiest and loveliest parts of Scotland, form mg a most excel lent Winter and Spring Residence Climate mild and equable completely sheltered from the north

winds
The arrange
ments of the
House are, beyond
all question, the
finest in Britain
A most complete
system of heating



The Sanitary Ar. angements are Perfect

is adapted over the whole house at an average of 60 degrees, Recreation and

Recreation and Billiard Rooms, Gymnasium, etc., Red Ash and Grass Lawn Tennis Courts

RATHS—Russian, Tulkish, Electric, Pine, etc Massage treatment for Ladies and Gen tlemen under ex perienced London trained attend ants

Within easy access of the Trossachs, Loch Lattine, Loch Lomond, Loch Tay, Loch Earn, etc

Resident Physician.

No Intoxicants allowed About an hour's rail from Glasgow and Edinburgh

GOLF COURSE OF NINE HOLES.



#### DEESIDE HYDROPATHIC ESTABLISHMENT,

HEATHCOT, near ABERDEEN

The Climate of Deeside is the most healthy and bracing in Great Britain. Residents in this Fistablishment have the privilege of preserved Salmon and Trout Fishing in the River Dee, as it runs through the Fistate of Healthcot.

The Turkish and other Baths are constructed with all the latest improvements necessary for the practice of Hydropathy

TERMS PER WEEK. £2 10s, FOR TWO HAVING SAME BEDROOM, £2 5s EACH FROM IST NOVEMBER TO 301H APRIL, £1 159

For particulars apply to Dr STEWAR P, Medical Superintendent, He wheat, near Aberdeen

## SCARBOROUGH HYDRO.



This Establishment is located in the lest sheltered and head linest position in the Queen of Watering Places

The atmosphere is bracing and salubrious all the year round

1141 ish, Russian, Electric, and all other affroced B 11115

Massage, Billiards, Tennis, &c.

Medical Attendant: DR. MEGGINSON.

TERMS FROM 6/- PER DAY.

#### SOUTHCLIFFE, BOURNEMOUTH.

On the South Cliff edge, facing the Sea, and opposite the Pier Resident Visitors and Patients received by E. P. Phil Pols, M.D. Terms free on application.



#### SOUTHPORT SUNNYSIDE HYDRO.

Physician Dr. BARNARDO

Summer and Winter Residence One of the handsomest buildings in Southport, centrally situated, replete with every comfort Fine Sea View. Neai Paiks, Pier, Trams, and Golf Links

Turkish. Vapour, and other Baths.

MASSAGE, GALVANISM

TERMS FROM £2 12 6

BOOCOCK. PROPRIETOR · J.

#### TREATMENT OF INEBRIATE GENTLEFOLK.

"Dunmurry," Sneyd Park, near Clifton, Glo's.

ESTABLISHED AD 1876 Not Licensed under the Act None but Gentlefolk received A beautifully situated detached private residence devoid of any features marking it as different from the other houses in Sneyd Park—a district reserved for houses cocupied by the wealthier classes. There is not within a mile of Dunmany a single place where any allowable dividing the purchased. None is ever allowed into the house under any circumstances whatsoever

DR AND MRS STEWART

(both total abstanners) receive as robuntary boarders in their family a few ladies and gentlemen of good social position—the total number seldom exceeding six—who are desirous of being cured of Inebriety Not onsaging in private practice, Dr STAWARI is able to devote his whole time to their treatment and personal supervision. He accompanies the gentlemen himself in them walks, &c The highest medical references in London and the Provinces can be given

No "nervous or "boideiland" cases are received Tilegiaphic Address "Dunmurry, Rockleaze, Bristol" Postal Address As above

#### Massage, Electric, Medicated and Turkish



Printed pri ticulars and special profession il terms of the Manager

Masseurs & Masseuses sent out

#### Royal York Baths. YORK TERRACE.

(Opposite Marylebone Church), N W ESTABLISHED 1820

#### MALYERN.

FERGUSSON'S HYDROPATHIC ESTABLISHMENT DR (Late Dr. RAYNER'S).

OPEN ALL THE YEAR ROUND

Delightful residence, 500 feet above the sea Au bracing, dry, and sunny, no logs Equable climate. Purest of water Gravelly soil. Perfect sanitary arrangements SHELTERED POSITION STANDS IN OWN GROUNDS

Every Hydropathic Appliance and Process.

#### MASSAGE.

Dr. Fergusson makes Massage a speciality, and administers it personally, having studied it practically in Vienna, in Germany under Prof. Von Mosengeil, and in Paris

Brine, Sulphur, Pine Extract, Alkaline, and Medicated Baths, also the Massage Bath, consisting of Massage under Warm Douches and Sprays, as at Aix-les-Bains, for Gout, Rheumatic Gout, Rheumatism, Neuralgia, &c

Medical Men may rely upon Patients receiving every kindness and attention. Tennis, Bowls, Croquet, Golf, Hunting, Billiards
SPECIAL TERMS TO MEDICAL Excellent Cuisine MEN

#### ESTABLISHMENT, HYDROPATHIC MATLOCK. DERBYSHIRE.

Railway Station -MATLOCK BRIDGE

Telegraph Office -MATLOCK BANK

#### Resident Physician- W. C. SHARPE, M.B.; and a House Physician.

The TURKISH and RUSSIAN BATHS are specially adapted in ventilation and otherwise to the requirements of Invalids

MASSAGE and ELECTRIC TREATMENT are at command

As a WINTER RESIDENCE this place is specially adapted for sufferers from Chest disorders, Rheumatism, and Gout, affording warm and well ventilited Public Rooms, Bedrooms and Corridors. The covered Balconies permit open-unreservice in all weathers. There is a large Billiard Room with two tables, a Smoking Room, and an American Elevator, and the Public Rooms and Corridors are lighted throughout by electric hight numbers during the winter months rarely fall below 130.

For full particulars see the Prospectus, to be had on application to THE MANAGER

#### ELANI

#### ST. ANN'S HILL H ${ t YDR0PAT}$ ESTABLISHMENT. BLARNEY, COUNTY CORK

Resident Physician: M. ALTDORFER, M.D.

ESTABLISHED 1843.

CHIERATED HEALTH RESORT, picturesquely situated on rising ground (sindy soil), and commanding a view of the fai-failed Groves and Castle of Blarney The Woods and Grounds attached comprise over 600 acres, whilst there are several miles of wooded and

sheltered walks in the neighbourhood.

All forms of Hydro and Electro-Therapeutic Applications, Massage and Medical Gymnastics Turkish, Pine, Brine, Fleetric and other Baths

Winters remarkably mild and even; House com ortably heated, Drawing, Reading and Billiard Rooms, Tennis

#### ELECTRIC LIGHT THROUGHOUT ENTIRE ESTABLISHMENT.

Terms 24 Guineas to 3 Guineas per week. 30 per cent discount allowed to Medical Men and their Families

Frospectus from the Secretary, St. Ann's Hill, County Cork.

#### KING, MENDHAM & CO., ELECTRICAL ENGINEERS.

MANUFACTURING ELECTRICIANS.

#### GALYANIC AND FARADIC MEDICAL BATTERIES

AND APPLIANCES OF EVERY



Special Form SULPHATE OF MERCURY GALVANIC BATTERY, in Polished Mahogany Case, fitted with screw airangement for laising and lowering Cells, with Collector, and Sponge-holders, 20 Cells, £4 4s.; 30 Cells. £5 5s.

IMPROVED PORTABLE FARADIC BATTERY, fitted with two specially designed Cells, giving strong current for working coil, Tube Regulator, and two Carbon and two other Electrodes. £4 4s.

DUBOIS-REYMOND'S SLEDGE COIL, on mahogany base, fitted with simple contact breaker and engraved scale . £2 2s.; larger, £4 10s.

WIMSHURST ELECTRICAL MACHINES, giving positive and negative currents, complete with Leyden Jars, Insulating Stool, and Connecting Rods and Rheophores, £8 8s.

PRIMARY and SECONDARY BATTERIES for Surgical Electric Lamps, Cauterising, etc , with necessary Appliances

ELECTRIC BATH ROOMS FITTED WITH BATTERIES, COILS, AND ALL NECESSARY APPLIANCES

LLECTRIC LIGHT, ELECTRIC BELLS, THIEF AND FIRE ALARMS, TELEPHONES, SPEAKING TUBES, ERECTLD & MAINTAINED IN WORKING ORDLA

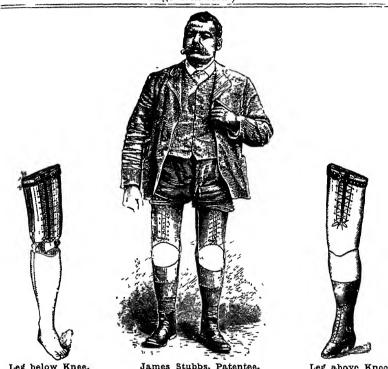
#### WESTERN ELECTRICAL WORKS, Narrow Wine St. and Fairfax St., BRISTOL.

[ESTABLISHED 1876.]

New Price List, Section II, Post Free II, Post Free Sixin Edition, Section I,—Experimental, 100 pages, 600 Illustrations, Post Free, 6d

#### JAS. STUBBS, ARTIFICIAL LIMB MAKER,

WITH PATENT RUBBER FEET & HANDS (As supplied to the Sheffield General Infirmary, Ashton-under-Lyne Infirmary, M.S & L Ry, L & Y. Ry, N E Ry., and the principal large Ironworks)



Leg below Knee. James Stubbs, Patentee. Leg above Knee. Wearer of a pair of Artificial Legs (amputated below the knee) & left hand

#### 94, SHEAF STREET, STATION ROAD, SHEFFIELD.

All kinds of Rubber Goods, Surgical Instruments, &c, in Stock or made

EVERY ATTENTION PAID AT THE SHORTEST NOTICE



SOLE WHOLESALE AGENTS—

Ether Apparatus alone, without Stop-Cock for Gas, in Case

DOWN BROS., Surgical Instrument Manufacturers, 5 & 7, St. Thomas's St., Borough, LONDON, S.E.

(OPPOSITE GUY'S HOSPITAL)

Telegraphic Address-"Down, London

Factory-King's Head Yard, Borough.

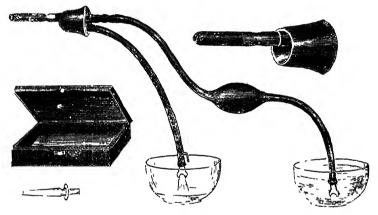
£3 12 6

# THE "ZULA" Syringe and Irrigator.

Patented in England, Germany, France and America.

Patent No 2310

Registered Trade Mark "Zula"



The "ZULA" has a plug for the mouth of the Vagina so constructed that the used liquid is compelled to pass out through its centre and through the outflow tube, it has also a flexible joint in the douche pipe which makes it easy to introduce, the plug is detachable from its socket into which a bone rectal pipe fits, thus forming an ordinary enema.

The "ZUI \" is made of the best fine cut sheet black enamelled rubber with polished vulcanite plug and douche pipe and is supplied in a handsome box

It is the best enema which has ever been brought before the public and can be obtained from all respectable Chemists, Druggists, and Surgical Instrument Makers.

# "DOMEN" BELTS

FOR

PREGNANCY, Accouchement, Corpulency, Umbilical Hernia, Floating Kidney.

# "DOMEN" STOOP CURE

FOR

Round Shoulders and Weak Backs.

# "DOMEN" BELT CORSET

FOR

Corpulency, General Support, and PREGNANCY.

AN ACTUAL COMBINATION OF BELT AND CORSET.

For Illustrated Price List of various Appliances, apply to

# "DOMEN" BELTS CO.

61, MOOR LANE,

E.C.

456, STRAND,

W.C.

30, SLOANE STREET, S.W.

SPECIAL TERMS TO THE PROFESSION.

# Varieose Veins: New Treatment! "DOMEN" CIRCLET

ACTS AS A VEIN-VALVE.

NO BANDAGING.

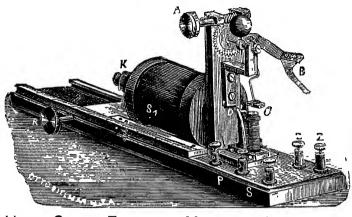
CIRCLETS SENT FOR INSPECTION ON APPLICATION.

FULL PARTICULARS SENT BY

## "DOMEN" BELTS CO.

61. MOOR LANE, LONDON, E.C.

# A. HURST & CO.,



HIGH CLASS ELECTRO MEDICAL APPARATUS
Of every description

APPLICATION

CATALOGUES

6, Fowkes Buildings, Great Tower Street, LONDON, E.C.

CURRENT BATTERIES DRY CELLS.

THE

# LIVERPOOL LINT Co.

MARK STREET MILLS,

NETHERFIELD ROAD NORTH,

LIVERPOOL,

MANUFACTURERS OF

LINTS,

COTTON WOOLS,
BANDAGES,

SURGEONS' TOW,

CARBOLIZED TOW,

SPLINT PADDING,

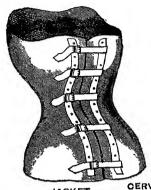
PROTECTIVE LINT.

Gissued Absorbent Gools.



Spongioline, Emg.

# COCKING'S PATENT Poro-Plastic Jackets & Splints.



DAL JACKET, No. 1



JACKET.

CERVICAL JACKET, No. I.

Designed by

W. J. Walsham, FRCS

CERVICAL JACKET,

INSTRUCTIONS FOR MEASUREMENT, &c.

JACKET. (In cases of Slight Deformity) --

Circumference at axilla waist hips

Length from axilla to great trochanter.

In severe angular cases, circumference over apex of curve, position of same, and contour should be given, in lateral cases a description of the case

In all cases it must be stated if for male or female

#### CERVICAL JACKETS.

Same measurements and circumference at neck, and length from centre of neck to axilla.

Any part of the Jacket can in the process of Manufacture be left soft.

#### LEG SPLINT.

Circumference at top of thigh above knee

Circumference below ki ee
,, at calf
... at ankle

Length of splint as required.

State if for right or left leg

Made with soft front or with hinge at back, and just part if required

When the foot part is required, also circumference at heel and instep, and length from centre of knee to ground

If the limb is contracted the contour should be given.

Jackets, Splints and Poro-Plastic in Sheets may be had of our Agents

Sole Manufacturer: J. T. GOCKING, PLYMOUTH.

LEG SPLINT For all D seases of the Knee, or Fraoture. Address for Telegrams -Optician, London.

# CURRY & PAXTON

#### OPHTHALMIC OPTICIANS,

195, GREAT PORTLAND ST., LONDON, W.

Branches LIVERPOOL, 8, Hardman Street; BRISTOL, 61, Park Street.

MANUFACIURERS OF

# Every Optical Instrument required by the Ophthalmic Surgeon,

HAVE THE HONOUR TO ANNOUNCE THAT THEY RECEIVED

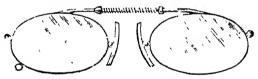
THE ONLY FIRST-CLASS AWARD FOR ENGLISH

#### Optical Instruments

AT THE

INTERNATIONAL MEDICAL AND SANITARY EXHIBITION, 1881.

Inventors and Patentees



OF THE ONLY

PINCE-NEZ SUITABLE FOR ASTIGMATISM.
Patent No. 8953, July, 1885.

CURRY & PAXTON are the ONLY Opticians who devote themselves ENTIRELY to the Medical Profession.

Provincial and Colonial Ophthalmic Surgeons are respectfully requested to communicate with Curry & Panion, and ascertain the method they have adopted, enabling Medical Practitioners to suit Patients as cheaply and accurately as if in the immediate neighbourhood



Depot for Pure Inhalation Oxygen. 6d. per foot.





#### PRESTON'S ONE CELL'

FOR CHLORIDE OF AMMONIUM OR OTHER VAPOUR INHALATIONS. PRICE—Card Box, 3/-; Wood Box, 4/-.

The simplest, most compact and effectual Inhaler extant. Gives a perfectly neutral vapour May be used for the Inhalation of Chlorule of Ammonium, or for any I olditle Medicament, simple or combined

The medicated vapour is produced by the passage of air through the strength tube in Fig 3 passing over a medicament, simple or committee in the cap or funnel. This single medicated vapour then passes over the sufface of the scoon medicam nt, contained at the hottom of the vessel Fig 3, and, combined or united, is then in haled through the bent tube as hig 1, UNIMPATRED or WEAKENED.

The Lancet, May 80th, 1891, says—"The apparatus is simple, safe and effectual, gives a neutral vapour, and can be used for any volable medicament."

The Pierramial Me intal. Journal, May 181, 181, says—"Will be found serviceable wherein Chloride of Ammonium is indicated. Is also cheap in price."

The Nursing Revold, September 18th, 1891, says—"Subjecting it to a searching test, we find that it gives a perfectly neutral vapour. The very thing that has been for a long time wanted, mamely, a cheap, sate, rehable, and effective inhalar.

The Butsh and Colonial Diagnet, June 28th, 1891, says—"This compact little Inhaler has the advantages of simplicity, compactness and unde range of application. Not only can it be used for Chloride of Ammonium, but also for any other volatile inhalation.

MANUFACTURED J. PRESTON, Manufacturing & Wholesale Chemist, 56, Fargate, & 33, Church Street, SHEFFIELD.

## READING'S IMPROVED IN

FOR THE REMOVAL OF INVALIDS.

With Removable Couch and Seats for Two or Four Persons.



These Carriages are so constructed as to render Travelling easy and agreeable to the most confirmed Invalid, being fitted with noiseless Wheels and every appliance for ease and comfort, and let on moderate terms for any journey

Also a large assortment of Rubber Tyred Vehicles for sale or hire.

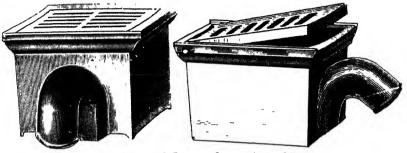
H. & J. READING, Coachbuilders, 15, Riding House Street, Langham Place, London, W. my Her Majesty's



Royal Letters Patent.

#### CLARK'S PATENT GULLY TRAP,

For STREET and PRIVATE DRAINAGE PURPOSES.



All Sizes and Prices, from 5/- to £5.

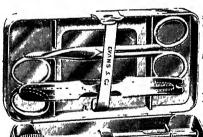
This Patent Gully is the most efficient yet produced—affords a perfect trap to Sewer Grs. at all times—iscasser cleanced—has giet flushing power. When sludge box is removed Drain is still trapped, and securely protected, and by the patent arrangement need never become frost bound. Full description and particulars on application.

The Ex'ors. of DANIEL CLARK, Waterloo Foundry, CARLISLE.

#### ASEPTIC POCKET INSTRUMENTS.

PORTABLE NEEDLE, SILK, AND WIRE CASE.





Dr Edmund K Houchin, London, says —"I have much pleasure in recommending it to my colleagues"

Price complete 2.6 Postage extra

Price complete, 2,6. Postage extra

#### CASE OF INSTRUMENTS

A. DIXON JOLLYE, M.R.C.S. In Plated Metal Case, Price 40s

EVANS & WORMULL

LONDON, S.E.
Instrument Makers to the Army,
Navy, and Indian Government, and
various Hospitals

Price Lists and Particulars of every kind of Appliances sent on application.

## THOS. GEO. WRIGHT,

MANUFACTURER OF

# **Electro-Medical Instruments**

AND

# Electrical Engineer,

"THE ELECTRICAL WORKS,"
DENMARK STREET,

BRISTOL.

EVERY KIND OF ELECTRO-MEDICAL INSTRUMENT SUPPLIED, CONSTRUCTED TO DESIGN, OR REPAIRED

AGENT FOR K. SCHALL, LONDON.

# Electric Lighting, of every description,

For HOSPITALS, ASYLUMS, INSTITUTIONS, or PRIVATE ESTABLISHMENTS, the work being carried out with special regard to the easy adaptation of the supply to Medical purposes—CAUTERIES, LAMPS FOR DIAGNOSIS AND EXAMINATION, OPERATIONS, FOOD WARMERS, etc, etc

The Public Supplies may be utilized by Medical Men with great ease and absolute safety

# Telephones, Signals, Fire Alarms, Temperature Indicators. ACCUMULATORS

supplied and charged, for Night Lamps, Carriage and Reading Lamps.

CONTINUOUS and ALTERNATING CURRENTS always available for Experimental Purposes.

ESTIMATES GIVEN

# THE MOST EFFECTUAL BANDAGE FOR THE CURE OF ULCERS

AND OTHER DISEASES OF THE LEG.

Statham's Solid Rubber Bandages, Porous or Non-Porous, with Tapes or Buttons, in Grey or Black, made from the finest Para Rubber.

PRICES, POST FREE.

Fee	4	Inch					OO					
						Each.	Feet	Inc	h			Each
5,			wide	• •	•	2/-	5 by	₹.	wide			2/3
73	by	2 }	"			3/-	71 by	2		• •	• •	
103		2}	**			11-						3/6
15	by	21	,,			6/-	_ ~ , ~	3		•		4/6
21	by	25	,,			8/-	15 by	3	**			6/9
	9	_	,, ****		••	01-	21 by	3	**	• •		9/-

Small WRIST BANDAGE, 3 ft. by 1½ inch wide, each 1/-.

Air and Water Beds and Cushions, Bed Sheets, Urinals, Ice Caps,

Hot Water Pillows. List post fiee

H. STATHAM & CO. (CORPORATION), MANCHESTER.



# COVERINGS & BALD HEADS.

CLARKSON'S NATURAL HEADS OF HAIR, for Ladies or Gentlemen, made on Invisible Hair Net Foundations of the most delicate nature, so as to dety detection even upon the closest inspection

FROM 1 TO 8 GUINEAS.
ALL MADE IN MOST ELEGANT STALLS AND LATEST EASHIONS

CURLS, PLAITS, TWISTS, SWITCHES, FRONTS, FRINGES.

Recommended by all Doctors.

See Notice in Medical Directory

"IND FOR FULL PARTICULARS.

# W. CLARKSON,

Br Special Appointment to Her Majesty,

45, WELLINGTON STREET, STRAND, LONDON.

SOLUBLE

CAPSULES
TABLETS
TINCTURES
INFUSIONS

GLYCERINE SUPPOSITORIES NUTRITIVE SUPPOSITORIES CONCENTRATED MIXTURES

E A R

P

RL

COATE

PIL

D

JOHN

# RICHARDSON & CO.

LEICESTER, LIMITED.

Established 1793.

Incorporated 1891

MEDICAL SPECIALITIES

EFFERVESCENT PREPARATIONS

ANTISEPTIC DRESSINGS

LOZENGES
EXTRACTS
GRANULES

Samples and Lists Free to the Profession.

EVEN GOLD ME

E

MEDALS A

WARDED

HIGHEST AWARD, Antwerp, 1894, for PHARMACEUTICAL PRODUCTS.

# ANTISEPTIC PASTILLES,

(DR. CARL SEILER'S FORMULA.)

BY W. R. WARNER & Co.,
PER BOTTLE, 1/6.

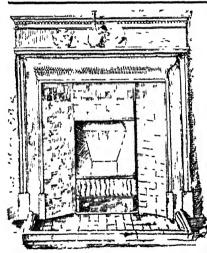
"These Pastilles, sold by Messis F Newbery and Sons, King Edward Street, are hard white Pellers, which are intended to be dissolved in writer and thus form an antiseptic solution to be used as a mostal application to be smilled up the nose, or as a spriy, also as a mouth wash. They weigh it grains, and are composed of sodium be abonate and boras, with small quantities of benzoate and salicylate of sodium, thymol, menthol, and oil of gaultheria. They readily dissolve in water, when crushed, forming a very alkaline solution, which proves to be highly antiseptic. They will be found to be very convenient for patients who have to use antiseptic solutions frequently, as they do away with the necessity of having large quantities of solutions on hand "—British Medical Journal, January 4th, 1850.

Write for New complete Price List of PILLS, GRAVULES, and PARVULES, &c, at Reduced Quotations by W R II arner & Co, groing upwards of 250 Excellent bormula

#### Depot: F. NEWBERY & SONS,

r, & 3, KING EDWARD ST, NEWGATE ST, LONDON, EC.

Supplied by ALL FIRST-CLASS CHEWISTS



HUNT'S New Rumford Feale ART FIREPLACE.

#### HARRY HUNT & Co.

12, NEW OXFORD STREET, LONDON, W.C..

PATENTERS AND MAKERS OF IMPROVED ECONOMISER

Art Fireplaces.

that burn continuously and give even temperature throughout the house.

#### KITCHENERS

with Lifting Grate, Open & Close Fue, Bottom Heat to Ovens, and all the latest improvements

PRICE LISTS Post Free on application

SHOW ROOM

12, NEW OXFORD STREET, W.C.

THE

# BANDAGE SHOOT

REGISTERED No 244102



it the back of small Shoot are 2 wooden splints, suitable for arm or les suitable for arm or les 8 yards ½ inch Ribbon Plaster at 5 de



Hangs on wall, takes up no

Can be quickly unhooked off wall and carried to scene of accident, such as Colliery or Railway

Undoubtedly the **best**, **handiest**, and most **cleanly** method of storing bandages

No **time lost** searching for size of bandage wanted

Always ready, always clean.

Impossible to run out of stock without warning

Saves time, saves money; will repay its cost in less than a year

Highly recommended by the Medical Profession.

Should be found in every Infirmary (Casualty Ward), Hospital, Private Surgery, Railway Station, Colliery, Factory, on board ship, Police and Fire Stations.

PROJECTS FROM WALL ONLY  $2\frac{1}{2}$  INCHES. Large Size, 3ft 3in.  $\times$  1 ft 6in. , Small Size, I ft. 8 in  $\times$  8in.

#### MADE IN TWO SIZES.

Large size holds 2 doz. 4 in., 2 doz. 3 in., 2 doz.  $2\frac{1}{2}$  in., 2 doz. 2 in., 3 doz 1 in. (Finger).

PRICE, empty, 17/6, filled with white open-wove absorbent bandages, 36/-.

Small Size holds 1 doz. 3 in., 1 doz. 2 in.,  $1\frac{1}{2}$  doz. 1 in. (Finger). Price, empty, 10/-, filled with white open-wove absorbent bandages, 14/6.

MADE ONLY BY

#### REYNOLDS & BRANSON

Surgical Instrument Makers.

13, BRIGGATE, LEEDS.

Telephone No 50 Registered Address, Telegrams "REYNOLDS, LEEDS."

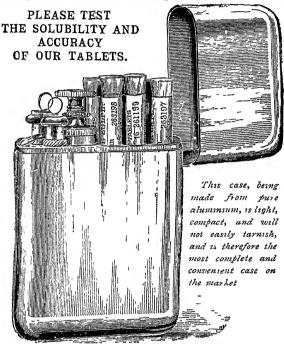
# Modern Therapeutics.

- ARGENTAMINE (SCHERING'S) syn Silver Phosphate Ethylendiamine.
  An organic silver salt penetrating into deap-seated tissues
- **BISMUTH SUBGALLATE** (SCHERING'S), syn Dermatol. Substitute for Iodoform, free from odour and toxic properties
- **BROMOFORM** (SCHERING'S). Analogue of chloroform, specially recommended for whooping cough of children
- **COFFEINE-CHLORAL** (SCHERING'S) Sedative and analgesic action on unitated peripheric system, also mild laxative in constipation
- CHLORALAMID = CHLORAL-FORMAMIDE (Schering's)
  Superior hypnotic, without harmful or unpleasant by-effects Must
  not be heated, but dispensed in cold water or spirituous solution
- **DIABETIN** = **LAEYULOSE** (SCHERING'S) Pure fruit sugar, is a superior food for diabetics
- DIPHTHERIA ANTITOXINE (ARONSON'S) This is an anti-diphtheritic remedy of definite strength, and always uniform in high anti-toxic value
- FORMALIN = 40 % FORMIC ALDEHYD SYN. FORMOL (SCHERING'S), the only harmless gaseous antiseptic and deodoriser
- IODOL (KALLE & Co's), syn Tetraiodopyrrol, substitute for Iodoform, free from odour and toxic effects
- **LITHIUM SALICYLATE** (Schering's) Removes the last traces of fever in acute articular rheumatism
- **OREXINE HYDROCHLOR.** (KALLE & Co's) Stomachic tonic with stimulant action on appetite, given in wafers
- **PANCREATINE** (FINTELBERG'S), extracted from the pancreatic juice of pigs and calves
- PARALDEHYD (SCHERING'S) Hypnotic and sedative without action on the heart Recommended as substitute for Chloral
- PHENOCOLL HYDROCHLORIDE (SCHERING'S,)=soluble Phenacetine A superior anti-pyretic, anti-rheumatic, anti-neuralgic, and effective in malarial tever, harmless to the blood and heart
- PIPERAZINE (SCHERING'S) Freely dissolving urinary deposits, promptly eliminated by the kidneys, and perfectly harmless in all cases of Unic acid diathesis
- RUBIDIUM IODIDE (SCHLRING'S) The high molecular weight of Rubidium presents this as a superior Iodine salt
- SALOCOLL (SCHERING'S) is a salicylate of Phenocoll, with similar therapeutic effects
- **SALOL** (SCHLRING'S) Its antiseptic, antipyretic, and anti-rheumatic properties are only excelled by its cholera and diarrhox remedial effects
- **THEOBROMINE** (SCHLRING'S) Closely resembles Caffeine, without irritating effect upon the nerve centres
- THIOSINAMINE (Schiring's), in the treatment of lupus
- TRIKRESOL (SCHERING'S) -- o p and m Cressols, has the advantage of Carbolic acid by three times the antiseptic value with one-third the toxity.

These products may be obtained from all Drug Stores.

## IMPROYED HYPODERMIC CASE

Made of Pure Aluminium. Light, Compact, Convenient Shape, and will not Tarnish.



NEW ALUMINIUM HYPODERMIC CASE (FULL SIZE).

We have been asked frequently of late if our Aluminium Hypodermic Case with Improved Syringe is in any way an initiation of any other case and syringe for sale in the market. In order that medical men and others interested may judge for themselves, we give herewith cut showing actual size and the general appearance of our Case complete with syringe and tubes of Tablets This Case was introduced into England a little more than four years ago and is, so far as we know, the first Aluminium Hypodermic Case introduced in this country

#### IMPROVED HYPODERMIC CASE.

Contains—Latest Improved Hypodermic Svringe, Two Fortified Needles, packet extra Wires, and six tubes Hypodermic Tablets, 25 Tablets in each tube Complete, 16s A Solution can be prepared in barrel of Syringe, by simply dropping the Tablet in and adding water desired Tablets dissolve at once.

PARKE, DAVIS & CO., 21, NORTH AUDLEY ST., GROSVENGR SQUARE, LONDON, W.

#### The Association for the Supply of

## PURE VACCINE LYMPH.



Formed 1877.

## 12, PALL MALL EAST, S.W.

Sole Agents for Dr. Warlomont's Calf Vaccine.

CALF VACCINE.—Tubes, 2s each, Half Tubes, 1s each Pomade in vials, 5s each, prepaid

HUMAN VACCINE —Tubes two-thirds full, 1s 8d each, Tubes one-third full, 1s each, prepaid

PIN-POINTS uncharged, 1s per dozen

VACCINE EJECTORS.—1s 3d each, including postage

Office hours, 10 to 4, Saturday, 10 to 2.

Postage Extra Post Office Orders (with orders) crossed London and Westminster Bank

EDWARD DARKE. Secretary



## Extractum Cortícis Cerebri (extract.)

A whitish powder extracted from the cortical portion of healthy brains, and containing in concentrated form the essential constituent or constituents of the higher nerve centies. This extract may be regarded as a nerve

food of high value in promoting the nutrition of the central and peripheral nervous systems "Extractum Corticis Cerebri" is, therefore, recommended for use in those innumerable maladies which are grouped under such titles as Neurasthenia, Nervous exhaustion, Hypochondriasis, &c, and also in failure of the intellectual faculties arising from excessive intellectual exercise. It deserves trial in all nerve diseases of an atrophic nature

The dose of "I structum Cortain Cirebri" is fifteen grains three times a day, after meals, in half a wine-glassful of water

PRICE IN BOTTLES, 3- and 5'-.

#### WILLOWS, FRANCIS & BUTLER,

WHOLESALE AND MANUFACTURING

Chemists and Export Druggists, 101, HIGH HOLBORN, LONDON, W.C. (ESTABLISHED 1751.)

#### DR. RENNER'S

## ESTABLISHMENT FOR VACCINATION WITH CALF LYMPH,

186, MARYLEBONE ROAD, LONDON, N.W.

VACCINATION FROM THE CALF DAILY FROM 11 TO 12 O'CLOCK.

Prices of Calf Lymph (Daily Fresh)

TUBES  $\left\{ \begin{array}{ll} \text{Large 2/- each or 3 for 5/6} \\ \text{Small 1/- each or 3 for 2/9} \end{array} \right\} \begin{array}{ll} \text{POINTS} \left\{ \begin{array}{ll} \text{Large 1/- each or 3 for 2/6} \\ \text{Small 9d} \end{array} \right. \text{each or 3 for 2/-} \\ \text{SQUARES} \end{array} \right.$ 

Registered Telegraphic Address, "VACCINE, London."

SENT ON RECEIPT OF REMITTANCE ADDRESSED TO THE MANAGER OF THE ESTABLISHMENT

THE

## CELEBRATED FRENCH CALF



VACCINE

from Dr Doucer's Establishment is sold in is Tubes for 5 Vaccinations, or 30 Vesicles guaranteed, perfectly pure Calf Pulpe.

FOR AN IMMEDIATE SUPPLY ADDRESS DR DOUCET

Sole Agent in England —

M. TÉTU, 16, Surrey Square, Old Kent Rd., London, S.E.

## PIGMENTUM CHLORALIS ANTISEPTICUM. (BROOM.)

(REGISTERED

A new and efficient remedy in the topical or local treatment of Infectious, Inflammatory, Catarrhal, or Ulcerative Diseases of the Mouth, Throat, and Nose Diphtheria, Croup, Scarlatina, Mobilli, Influenza, Pertussis, Aphtha, Tonsillitis, Parotitis, Stomatitis, Glossitis, Gingivitis, Pharyngitis, Laryngitis, Rhimitis, Folliculitis, Ozœna, Coryza, Syphilis, &c

Prepared specially for the use of Members of the Medical and Dental Professions and for Dispensing Purposes only, from the formula of Dr John Broom, Acting Physician and Surgeon to the Bistol Institution for Skin and General Diseases

Bottles, including Brushes and author's Monograph, 4/6 and 10/6 each

Sole Agents.

MESSRS. FERRIS & CO., Pharmaceutical Chemists, BRISTOL.

SILVER MEDAL, INTERNATIONAL HEALTH EXHIBITION, 1884. OOLLEY'S

# TISEPTIC & SOLUBLE

(Prepared with Boric Acid.)

TOILET AND FOR THE NURSERY. Soothes the Skin and allays irritation from Sunburn, Cold Winds, &c., &c.
TWELVE YEARS IN USE, WITH SIGNAL SUCCESS

'FILL MLDIC II ANNUIT 'saus -"The best form of Dusting Powder for Nursery and Tollet use which has come under our notice"
"IIII NI RSI'S, Joil RVAI" reports -"We have tried it extensively, and found it most useful'
A MI DICAL PRICTITION R unites -"Our children never chafe while using it"
A LADY unites - I Is the softest and most delicate powder I have even used"
"FRAGRANT COOTHING, CLEANLY"—'THE QUEEN"

White, Pink and Cream In Boxes, 1 -, 19, and 3'-. Of all Chemists.

JAS. WOOLLEY. Manufacturing Pharmaceutical Chemists. MANCHESTER.

## BLAKE, SANDFORD & BLAK

Invite special attention to their

## Lithia, Potash & Soda Waters.

Being guaranteed of full Pharmacopæial strength, these Waters are the only kind likely to be of service where the remedial effect of the alkali is required

Also Seltzer Water.

## Citrate of Potash Water. 30 grains to the 1-pint

Mineral Acid Water. A delicious and whole-some sparkling beverage (containing Nitro-hydro-

chloric Acid) especially grateful to Convalescents. It is prescribed with marked benefit in PHTIIISIS, and in the Treatment of Sluggish Liver and Indigestion

Price Lists and Particulars sent, on application to the original Makers-

#### BLAKE, SANDFORD & BLAKE, 47, PICCADILLY, LONDON.

### PAPAIN (Dr. Finkler & Co.) Powder.

PAPAIN (Dr. Finkler & Co.) Tablets. Lozenges.

PAPAIN (Dr. Finkler & Co ) Bismuth Liq. Iridin Liq.

PAPAIN (Dr. Finkler & Co.) Euonymin Liq.

All packages of PAPAIN (Dr. Finkler & Co) are closed with Trade Mark and Signature, and each contains a short and convenient test ACCEPT NO OTHER.



Figurally & Co

#### ANESTILE (Patent Dr. Bengué).

A safe, convenient, and economical anæsthetic for producing local anæsthesia in **Dental** and **Surgical Operations**, also valuable for subduing pain in **Sciatic** and **Rheumatic Affections**.

Compressed in nickel-plated copper cylinders containing 120 fluid grammes each Empty cylinders, if returned in good condition, are allowed for

#### ETHYL CHLORIDE (Patent Dr. Bengué).

An approved local anæsthetic for **Dental** and **Minor Surgical Operations.** 

Packed in glass bulbs containing 10 or 30 fluid grammes each Boxes containing 1 or 3 bulbs of 30 grammes and 10 bulbs of 10 grammes

#### DIURETIN-KNOLL.

Indicated in all diopsies due to cardiac and renal affectiors Absolutely non-poisonous Free from unpleasant by-effects.

Packed in 1, 2, and 4 or glass-stoppered bottles

#### **EXALGINE** (Brigonnet).

The well-known analgesic indicated in Sciatica, Lumbago, Angina Pectoris, Locomotor Ataxy, Cephalalgia, and other neuroses accompanying attacks of Influenza

Packed in I-oz tins only, with Nime and Trade Mark of the Manufacturers—Messis Brigonnet & Naville, La Plaine, St Denis Buyers are cautioned not to accept any other packages, as such constitute an intringement of the trade mark

Above artules are sold by all the Wholesale Drug Houses, or, where not obtainable, apply direct to

#### B. KÜHN,

36, ST. MARY-AT-HILL, LONDON.

Other Specialities: Salol, Salicylates (Knoll), Tannic, Gallic and Pyrogallic Acid, Quinine Wine, etc.

FULL PRICE LISTS, PAMPHLETS, Etc., ON APPLICATION

# TASTELESS PILLS



(COX'S PATENT.)

Dated and Sealed April 13th, 1854



#### AND AS A FURTHER PROTECTION

The Registrar of Trade Marks (after giving the usual public notice prescribed by Parliament to allow of apposition) has granted us the appended TRADE MARK, and no pills will be sent out without this mark on all bottles or packages

#### CATALOGUES SENT POST FREE ON APPLICATION.

These contain 800 Coated and Uncoated forms of different strengths, requiring not less than 3,000 bottles and jars, and our stock includes the majority of the approved new remedies (suitable for pilular form) up to present date.

Medical Men and Chemists when ordering through wholesale houses are requested to specify—

#### COX'S TASTELESS PILLS,

Or to Order direct from us, we paying Postage and Carriage.

Our Mr Cox invented and introduced pearl-coating to render Pills tasteless more than forty years ago, and our trade, which is constantly increasing amongst the highest class of medical men and chemists, is doubtless four or five times as large as the rest of our copy ists put together.

Any formula Dispensed & Coated.

Quotations & Samples Free.

## ARTHUR H. COX & Co.,

Original Makers of Tasteless Pills.

St. Martin's Place, BRIGHTON.

Telegraphic Address "COX, BRIGHTON"

# Cinchona

The ONLY preparation of Cinchona which can be administered without fear of producing headache, tinnitus aurium, or gastric disturbance is

dig. Cuickouæ Sydrohoue.

(Flescher)

Does nr 6 m x.

It contains in perfect solution, not only the whole of the alkaloids, but also the Kinic, Cinchotannic, and Kinovic Acids, together with the aromatic constituents of the bark, IN INTIMATE ASSOCIATION WITH BROMINE.

Brilliantly soluble in Distilled Water.

Sole Manufacturers under Royal Letters Patent,

Fletcher, Fletcher & Co.,

Holloway, London, n.

Samples and full particulars sent FREE to any Member of the Profession on request.

## DIABETES

## BONTHRON'S DIABETIC BREAD & BISCUITS.

Dr PAVY, in his recent work on "Diabetes," p. 245, says :-

"Mr Bonthron, of rook Regent Street, has recently succeeded in producing some Gluten Bisconts and Bread which he more eatable that anything of the kind I have ever yet met with. The Bisconts pre ent somewhat the churacter of a cracknel, they eat short and crisp, and are really reducible in the mouth, hiving no unpleasant taste, and, consumed with other food, possess the power of clausing the pilite. The Bread is most, and will not keep good or more than about tending. Its consumption therefore involves a frequent supply. It serves to increase the variety at the command of the Dirbetic, and, independently of this, possesses the advantage of presenting in approach to the condition of ordinary bread."

"The LANCET" of June 9th, 1877, under the head of Analytical Records, says -

"We have received from the above well-known maker no less than six different samples of biscuits, etc, intended for dialetic treatment. No 2 is called the 'Diabetic Biscuit,' and contains much gluten and very little stuch. No 2 is the 'Regent Biscuit,' made from gluten and prepared bran. No 3 is an 'Almond Biscuit,' and the lest are modifications of the first two. They are excellent preputations, and though, of course, they are not so palatable as if they contained the normal quit utily of statch, they can be eaten without difficulty or repulsion. In ced, it is not easy to see how they could be improved."

The Bread is made fresh every day, and, as has been already noticed, will keep good for a week, a supply can thus be forwarded to any part of The Biscuits will keep good for almost any length of time, the Kingdom and on this account are well adapted for exportation

In addition to the above, a large and excellent variety of Dessert Biscuits

of a nutritive and appetising character can now be supplied.

The new COFFEE AND CRESSINI BISCUITS, now widely recommended by Medical Men, are very agreeable and pleasant.

These preparations have just lately been awarded the Silver Medil, highest award in class, in the Edinburgh Exhibition.

GLUTEN FLOUR, 2,6 per lb. BISCUITS, 3/6 per lb. LOAVES, 9d. each. BRAN, 1s. per lb.

The LOAVES can be sent through the Post, Is each.

Both Bread and Biscuits have now been before the Medical Profession for over 25 years with the highest results, and with the greatest satisfaction to those requiring to use them, and whose testimony (after years of trial) of the great advantage they continue to derive from them, constitute their best recommendation

As Gluten Preparations are costly, and will keep good any length of time,

it is cheapest and best to communicate direct with the Maker,

JOHN BONTHRON, 106, Regent Street, London.



Winch. Quarts - -

# SYRUP HYPOPHOSPH. Co.

1-lb. bottles, unstamped to the Profession - - 21/- doz. 1-lb. bottles, ditto- - 36/- ,, 2/6 lb.

LORIMER'S.

Is not a quack preparation or secret nostrum, the formula is printed on every label.

The formula is original, founded upon scientific principles, and has stood the test of practical experience. There is no other preparation of the Hypophosphites which contains so large a proportion (about six grains to the fluid drachm) of the salts employed

All its constitutents are in perfect and permanent solution, the last dose being identical, under all circumstances, with the first. There is consequently no possibility of danger from the precipitation of Strychnine, as is the case with preparations that require shaking to distribute the dose

It is neutral, or very slightly alkaline, and can therefore be taken without ill effect by persons afflicted with sensitive stomachs, which would probably reject acid or strongly alkaline preparations

Other preparations of similar name are either strongly acid, of unknown composition (varying from half to three grains Hypophosphites to the drachm), or deposit their active ingredients on standing; many have all these faults

#### CAUTION.

As we have had several cases brought under our notice where inefficient imitations have been dispensed instead of our Syrup, causing much disappointment and annoyance, Physicians will oblige by writing, "Syr Hypophosph Co (Lorimer)"

LORIMER & Co., BRITANNIA ROW, ISLINGTON

ISLINGTON, LONDON, N.

## LORIMER'S



## COCA WINE

Operates as a Nerve Stimulant and muscular Tonic, much used in relieving fatigue from excessive mental and physical exertion, and where a general toning or strengthening of the system is needed

Useful in various disturbances of the digestive organs

Prepared from Coca Leaves (Erythroxylon Cocæ)

As an ordinary restorative it should be taken two or three times a day in wineglassful doses,

CAUTION—In order to avoid the substitution of impudent innitations, ofien worthless, and consequently disappointing in effect, the Medical Profession are respectfully requested to specify "Vin Coca (Loriner's)" when prescribing

Always uniform and reliable

A recent unsolicited Testimonial, which may be seen, with many others, at our Offices.

"Messis Lokim R & Co, Islington "Geniiemln,

"I had a visit this day from a gentleman to whom about a week since I gave your Coca Wine in Menial Fatigue. At the time he made me understind that he only perceived ordininy vinous stimulation, but he now assures me (he is an eminent Royal Academici in) that when the first effects had passed off he distinctly recognised a spe ril benefit and removal of latigue as having taken place, together with an actes of fresh energy which has been only attributable to the Wine.

' Yours faithfully,

"SURG.-LT -COLONEL,
"LRC51 (1866)"

Supplied to the Profession in Imperial Pint Bottles at 29,- per Dozen net

LORIMER & Co., BRITANNIA ROW, ISLINGTON, LONDON, N., Will be pleased to supply Samples to Members of the Frofession, free on application.

#### Every Day

without
exception
proofs of
the efficacy of

#### FELS'S GERMICIDE SOAP

continue to
come in.

Medical Men
certify to its
unique value
in all forms of
Skin Disease,
in Obstetrics,
as an Antiseptic,
in Dental Practice,
as a Deodorant,
and for many other
obvious purposes

#### FELS'S GERMICIDE SOAP

stands every test
made by Scientific Men,
and is not advertised
to the public
Chemists keep it.

#### LORIMER & CO., Sole Agents,

Britannia Row, LONDON, N.

# Matural

FREQUENT FRESH IMPORTATIONS.

## Mineral Waters.

#### PURE AERATED WATERS.

Physicians recommending can depend on the Waters being carefully prepared, perfect aeration and definite strength of ingredients.

#### RICHARD DAVIS,

20, Maddox Street, Regent Street, LONDON. SOLE AGENT FOR

"Koncegno" Natural Fron & Arsenic Water.

#### THE PERFECT

"FAROLA is immeasurably superior to arrowroot corn flour, sago, etc With milk it forms exquisite puddings, and in the nursery it will prove a valuable variety which children will take with avidity "

## Liverpool Medico-Chirurgical Journal "An ideal form of giving farmaceous food with milk."-A London Physician.

"Mariborough House, Pall Mall, S W.
Colonel Clarke, Private Secretary to the Princess of Wales, writes
to inform Mr James Marshall that FAROLA has been ordered for
use in the Household"

Awarded Gold Medals at the two important International Exhibitions held in 1886—Edinburgh and Liverpool—Ivoo years before any imitations were in market

FAROLA is a highly refined preparation of Wheat, which conserves all the nutritive elements and fine flavour naturally belonging to the purest part of the grain. All irritating and indigestible matter has been carefully removed by treatment in complex machinery, mechanical means only being employed

> Samples will be sent free to Members of the Medical Profession Send Post (and for Descriptive Book with Recipes (post free).

JAMES MARSHALL, 25 East Cumberland-st., GLASGOW.



PREPARATIONS.

The Original. The Favourite. The Reliable. The Inimitable.

LIBERAL DISCOUNT TO PROFESSION

LOZENGES.

1/9, 2/9, 5/6 a tin, post free

EXTRACT.

3/9, 5/9 a bot , post free

4/- a bottle, or 45/- per doz.

CARRIAGE

PAID

**PREPARATIONS** 

KOLA

As WINE, 4/- a bottle, 45/- a doz, post f.ee

As EXTRACT. 3/9, 5/9 a bottle, post free

As LOZENGES. 1/9, 2/9, 5/6 a tin, post free

The lafter are also made in combination with Coca and Extract of Meat

LIBERAL DISCOUNT TO PROFESSION.

ARMBRECHT, NELSON & CO.,

Duke Street, Grosvenor Square, LONDON, W.

# Angier's Petroleum Emulsion,

With HYPOPHOSPHITES, LIME & SODA.

PALATABLE AND EXTREMELY WELL BORNE BY DELICATE STOMACHS.

## NUTRITIVE + ANTISEPTIC + SEDATIVE.

Angier's Petroleum Emulsion is a most valuable adjunct in the treatment of Phthisis, and a most efficient substitute for Cod-liver Oil in all forms of wasting diseases

The properties of Petroleum render it of special value in the treatment of diseases of a bactericidal nature, as well as in chronic catarrhal conditions of the Respiratory, Digestive, and Urinary organs.

Samples Free on application.

ANGIER CHEMICAL CO., 32, SNOW HILL, LONDON, E.C.

# DIABETES DIABETES OBESITY

VAN ABBOTT'S

#### GLUTEN BREAD SOYA BREAD AND BISCUITS,

And all suitable Foods for Diabetic Patients Sweetened with Saccharin or plain.

KALOS BISCUITS, And other Special Foods for Obesity.
Free from Drugs, Chemicals, and Seaweeds

#### VAN ABBOTT'S

INVALID'S REAL TURTLE SOUP, made from Fresh Green Turtle.

VAN ABBOTT'S Dietary Tables, Menu, Cooking Receipts, Price List, Post free, and Samples free to the Profession

#### G. VAN ABBOTT & SONS'

DIABETIC, INVALID, and INFANT DIETETIC DEPOT, 6, Duke St. Mansions, Grosvenor Square, W.

ESTABLISHED 1859.

RAME FOOD DIET

for Infants, Invalids & Everybody.
Contains Extracted Wheat Phosphates.

16 oz. for 1s.

Compare Price, Weight and Value of other Foods

Frame Food'' Diet is the only food containing the organic phosphates extracted from Wheat Bran, which are so vitally necessary for the development and vigour of the Human Frame, it is therefore the best food for Infants, Invalids, Nursing Mothers, etc. In piocess of manufacture the action of the Extract upon the starch converts it into Dextrine, thereby rendering "Frame Food" Diet especially suitable for the weak digestive powers of young Infants and Invalids

Children grow stout and strong while using it, Invalids find it restorative and invigorating.

Nursing Mothers are greatly benefited in the flow and nutritive nature of their milk, and the same unique phosphatic nourishment replenishes the drain on the system of Expectant Mothers with the best results for both mother and child

Sample free to Medical Men (mention this book)

Sold everywhere, in tins, I lb at 15, 4 lbs at 35 gd., or sent, carriage paid, by FRAME FOOD CO. Lim., Lombard Road, Battersea, London, S.W.

# O. Bruster & Co.'s PILSENER LAGER BEER.

Brewed from PURE HOPS and MALT only, and acknowledged to be the best Medical Gentlemen are invited to apply for Samples, which we send free of charge.

Bottling Agents in all Principal Towns
To be obtained from most GROCERS, WINE MERCHANTS & STORES

O. BRUSTER & Co., 143a, Holborn, London, E.C.

#### BENGER'S FOOD.

For Infants, Children, and Invalids.

GOLD MEDAL-AWARDED HEALTH EXHIBITION, LONDON HIGHEST AWARD-ADELAIDE, 1887. & MELBOURNE, 1888

The Lancet describes it as "Mr Benger's admirable preparation"

The London Medical Record says "It is retained when all other foods are rejected. It is invaluable."

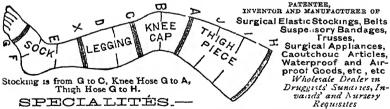
The British Medical Journal says "Benger's Food has by its excellence established a reputation of its own"

The Illustrated Medical News says "Infants do remarkably well on it There is certainly a great future before it"

Benger's Food is sold in Tins at 1/6, 2/6, 5/-, & 10/-, by Chemists, &c, everywhere.

Wholesale of all Wholesale Houses

## J. H. HAYWOOD, Castle Gate, Nottingham,



Trusses for Rupture of all kinds, equal to any supplied in London, Paris, or New York Ladies' and Gentlemen's Supporting Belts and Bandiges Poro-Hastic Jackets and Steel Instruments for Curvature of the Spine inculded to the patient as in London Splints and Instruments for Deformed Feet and Legs Chest Eap inding Braces for Stooping Shoulders and Contracted Chests Patent Elastic Surgin al Stockings, without seams, for Varicose Veins, Sprains, etc Magnetic Belts and Appliances for all parts of the body India Rubber Appliances, Invalid Furniture, Bath Chairs, Carriages, Ciutches, Ear Frumpets, Throat, Ear, and Nose Instruments, etc. Artificial Arms, Legs, etc. Strong cheap atticles for working men

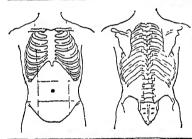
#### FANNIN & CO.'S CLINICAL THERMOMETERS.

A-Fannin & Co's Hospital Clinical Thermometers, with	_	_	_
indestructible Index, in metal cases	Ō	2	Q
B.—Fannin & Co's Do Do	0	2	6
C-Fannin & Co.'s Improved Clinical Thermometer, round	0	3	0
D - Fannin & Co's Do Do with flat back	U	4	υ
E-Fannin & Co's Improved Half-Minute Thermometer,	Ō	4	6
F-Faunin & Co's Improved Clinical Thermometer, with			
Lens Front Magnifying Index	0	5	0
H-Fannin & Co.'s Improved Half-Minute Thermometer,			
with Lens Front Magnifying Index	0	6	6

Postage 3d FANNIN & CO guarantee every Thermometer they supply to be of Standard Precision

FANNIN & CO., Surgeons' Instrument Makers, 41, GRAFTON STREET, DUBLIN.

TELEGRAMS-"FANNIN, DUBLIN"



The "PERFECT"

## CLINICAL CHART.

Pocket-case Book, Case Sheets, Clinical Figures and Charts.

SPECIMENS SENT POST FREE BY

DANIELSSON & CO., 52, Beaumont St., London, W. (Contrictors to H M Civ Med Dept) Specialists for Medical Illustrations



Registered No 22,525

An ingenious and indispensable Time Saver, for use by Dispensing Surgeons, Veterinary Surgeons, Chemists, Wine Merchants, Bottleis, and all who value time in dispensing or bottling;

#### Mumerous Testimonials.

Prices from 2/6 upwards 4-oz size to Winchester and larger

Of all Wholesale Druggists and Instrument Makers, or direct from

A. HASLEWOOD, Surgeon, BUXTON, DERBYSHIRE.

Agents BURGOYNES, SOUTHALL, WOOLLEY, birmingham. Manchester

ANDERSON & CO'S REGISTERED

# ACTOMALTINE

Supplied regularly to the Royal Hospitals for Sick Children, Edinburgh & Glasgow THE PERFECT SUBSTITUTE FOR COD LIVER OIL.

Readily taken, retained and assimilated, by the most delicate stomachs when all other foods are rejected.

ANDERSON & Co., Wholesale Chemists, EDINBURGH.

### A BOON to NURSES!

## "KING'S PATENT COOKED OATMEAL."

This Finest Scotcii Oatmeal is INVALUABLE IN CONFINE-MENT CASES, making a cup of delicious gruel WITH ONE MINUTE'S BOILING, and saving much time and trouble

It is thoroughly Cooked by a new patent process, which, whilst preserving its most nutritious properties, eliminates the two heating qualities contained in ordinary Groats or Oatmeal

In 3d., 6d., is., and 3s. Tins.

Sample sent Free on Application

#### ALBION FOOD MILLS, SYCAMORE ST., LONDON, E.C.

CHICAGO EXHIBITION, HIGHEST AWARDS.

## ALBION CLAY Co., LTD.

SOLE MANUFACTURERS OF THE

#### "GRANITIC STONEWARE" PIPES.

PATENT PARAGON PIPES. Sound Joints Free Flow, No Stoppage.

8YKES' PATENT JOINT PIPES. Watertight Sewers in Waterlogged Ground.

8YKES' PATENT SEWER CAS INTERCEPTOR. Complete Protection

JONES & SYKES' PATENT IMPROVED CHANNEL BENDS for Manholes

8ANKEYS PATENT DEEP INTERC PTINC CULLEY. Cannot untrap in Dry

Weather Other Specializes in Gullies, Interceptors, &c.

For Prices, &c, apply to

ALBION WORKS: WOODVILLE, BURTON-ON-TRENT. CHIEF LONDON OFFICE: 18, NEW BRIDGE ST., E.C.

In the Press. Ready Shortly Demy 8vo.

## LEPROSY:

IN ITS

#### Clinical and Pathological Aspects,

WITH NUMEROUS PHOTOGRAPHS AND COLOURED PLATES

BY

DR. G ARMAUER HANSEN,

INSPECTOR GENERAL FOR LEPROSY IN NORWAY,

CADI

Dr. CARL LOOFT (Of Bergen)

TRANSLATED BY

NORMAN WALKER, MD, FRCP ED.,

Asst Phys for Dermatology, Edin Roval Infirm

This is rather an English edition than a mere translation of Drs Hansen and Looft's original work, the photographs of the disease and the chapter on Treatment having been added to make the volume more complete. To all those having to deal with Leprosy in India and our Colonies, to Pathologists, Teachers and Students generally, a clear scientific account of the disease coming from such an authority as Dr Hansen cannot fail to be valuable

Now Ready. 8vo Cloth Illustrated 4/- post free OTHERS IN PREPARATION

WRIGHT'S

#### EPITOMES OF MODERN PROGRESS

IN MEDICINE AND SURGERY

FOR STUDENTS AND PRACTITIONERS

## URINARY SURGERY.

BY E HURRY FENWICK, FRCS,

Surg to London Hosp, Surg and Path to St Peter's Hosp for Urinary Diseases

"This capital little book forms one of a series of 'Epitomes of Modern Progress' It is accurate, and fully represents all shades of opinion, being, what its name implies, an epitome of the best recent renal work. It is cheap, and we congratulate both author and publishers on its appearance. A capital bibliography concludes the book, and makes it really a valuable work of reference although its pages number but 207"—Clinical Journ

work of reference although its pages number but 207"—Clinical Journ
"We cannot recommend too highly this valuable book offered by the
publishers at so low a price"—Liverpool Med Journ

"We can congratulate its author on the completeness of his resumé, on the accuracy of his compilation, and on the clearness of his language"—Burningham Med Review

Bristol: JOHN WRIGHT & CO.

London: SIMPKIN, MARSHALL, HAMILTON, KENT & CO., Ltd.



#### BRADF'ORD'S

## Laundry Installations

FOR

General Hospitals and Workhouse Infirmaries. Fever and other Infectious Hospitals.

Cottage Hospitals and School and College Sanatoriums.

Children's, Incurables', Ophthalmic, and other Special Hospitals.

Convalescent Hospitals and Homes.

Lunatic Asylums, Public and Private.

TO THOSE INTERESTED IN THE PLANNING OR MANAGE-MENT OF ANY OF THE ABOVE-MENTIONED INSTITUTIONS—We are prepared at all times to furnish promptly reliable Preliminary Information, Special Illustrated Catalogues, Details and Estimates of Costs for Complete Laundry Plant, or the remodelling or Extension of existing Laundries, in accordance with the best modern engineering and sanitary practice

References to the Laundries in connection with the most important Hospitals, Asylums, and Infirmaries in Great Britain

### THOMAS BRADFORD & CO.,

Laundry and General Engineers,

140 to 143, High Holborn, LONDON; Crescent Iron Works, SALFORD;
Also LIVERPOOL and MANCHESTER.



#### FERRIS & COMPANY'S

## **Antiseptic Sublimate Powders**

For Use in Midwifery Practice.

Prepared in accordance with the suggestions of Dr. CHAS. J. CULLINGWORTH, F.R.C.P.

Each powder contains 10 grains Corrosive Sublimate, 50 grains Tartaric Acid, and one grain Cochineal The contents of one powder dissolved in a pint of water forms a solution of Corrosive Sublimate of the strength of 1 in 1,000.

Dr. Cullingworth considers Corrosive Sublimate the most efficient Antiseptic at present known for ensuring perfect antiseptic cleanliness of the hands of the attendants, of any instruments or appliances that may be required, and of everything that is likely to be brought into contact with the genital passages He says:

"A solution of Coirosive Sublimate does not, like solutions of Potassium Permanganate, lose its antiseptic property after being once used. It is, therefore, usually sufficient to prepare a supply on entering the lying-in room, to renew it when the labour is over, and afterwards to prepare a fresh solution once a day. The solution should be placed in a small bowl, on the washstand, by the side of the washhand basin, and kept there ready for immediate use, from the time the first internal examination is made to the end of the puerperal week."

These Powders, which were formerly sent out in Glass Tubes, are now put up in small Metal Tin Boxes, each tin containing six powders. The powders are securely wrapped, and labelled Poison, and the wrapping can be burnt immediately the contents are used. The powders are very easily dissolved, and are not so likely to lead to accidents by poisoning as lozenge-shaped Tablets.

Price 6/- per dozen tins, of six powders in each.

Sent out in card boxes, each containing six tins

#### FERRIS & COMPANY, BRISTOL,

Wholesale & Export Druggists.

FIVE PRIZE MEDALS AWARDED.

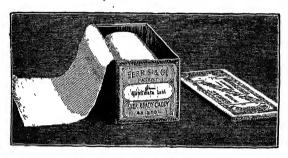
#### FERRIS & COMPANY'S

PATENT

## "EVER-READY" CADDY

NOVEL and elegant invention for keeping Spread Plasters, Strapping, Lint, Wool, Antiseptic Gauze, Gutta Percha Tissue, Oiled Silk, and other Surgical Dressings, in perfect condition, clean, without waste, and in the smallest possible compass

Dressings stored on this new patent principle are always handy and ready for use, the original outlay is very trifling, and the contents can be renewed from time to time without the necessity of purchasing a Fresh Caddy



A very complete list of the "Cylinder Wound" Dressings, with prices, will be forwarded upon application. Any other Dressing wound to order. Special quotations to large consumers

Nearly every kind of Sheet Dressing is adapted to these receptacles, and rolls of the "Cylinder Wound" Plasters, Lints, Wools, Gauzes, &c., for refilling the Patent "Ever-Ready" Caddy, can be obtained from the Patentees

The PATENT CADDY is made in Two Sizes, to suit different kinds of Dressings.

Each kind of Dressing is fitted in a separate Caddy, which can be refilled as required

SOLE PATENTEES\_

FERRIS & COMPANY,

UNION STREET. RRIGTAL

#### len&Hanbury WHOLESALE

MANUFACTURING PHARMACEUTICAL & ANALYTICAL CHEMISTS.

Surgeons' Manufacturers of and Deformity Instruments, ABSORBENT WOOLS & ANTISEPTIC DRESSINGS.

EOUIPMENTS FOR NURSING AND AMBULANCE STATIONS

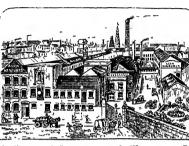
Contractors to H.M. Indian Gove nment

I aboratories and Warehouse-Bethnal Green. LONDON, E.

Australian Agency-484. Collins Street. MELBOURNE.

> ( od Liver Oil l'actorius-

Longva & Kjerstad NORWAY



Caty House -Plough Court, Lombard St., E.C.

West-end House-Vere Street. Cavendish Sq., W.

Surenai Instrument De par tment -48, Wigmore St., W. LONDON.

View of Allen & Hanburys' Laboratories & Warthouse, Bethnai Gribn, E (To which address all communications should be addressed)

See also Pages iii., iv., v., vi., vii., viii.

#### THE MEDICAL PROFESSION ON THE

#### PATENT EVER-READ CADDY.

November 2nd, 1894 Caddies are very useful

and a great advantage , MRCS, LSA

GENTLEMEN.

November 22nd, 1894

You may send me two "E-R" Plaster Caddies-one each for Emp Roborans and Emp Adhesiv The Caddy you sent me yesterday came all right, and I like it

Yours truly, -, LRCP, LRCS, &c

DEAR SIRS.

10/12/94

I consider the "Ever-ready" Caddy a great convenience, and means of protecting the dressings from dust and infection. I am glad you brought the infection I am glad you contrivance to my notice.

Yours faithfully,

-, LRCPI, LRCSI, LM.&c

19 12/94 Mr - (M B Edin, C.M) is much pleased with the "E-R Caddies" and

contents, and herewith encloses order cheque in payment

\*\*\*\*\*

I liked the "E-R" Lint Caddy you sent last order very much Very useful and handy

-, MRCS, LSA, &c

\*\*\*\*\*\*

January 17th, 1895

GENTLEMEN,

I am pleased to keep the Dressing Caddies, being so very convenient, neat, and handy

Yours obediently.

---, MRC\*S LSA